

GREAT LAKES TECHNOCRAT

25c

SEPTEMBER-OCTOBER, 1944

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GREAT LAKES TECHNOCRAT

SEPTEMBER-OCTOBER, 1944 ★ VOL. 11 ★ No. 12 ★ WHOLE NO. 69

★ Illustrating the Futility of Price System Methods of Operation; Interpreting the Trend of Events from the Social Aspect of Science; and Presenting the Specifications for Total Victory in America's War Against Fascism. ★

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TECHNOCRACY DIGEST

625 W. Pender Street

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Propaganda Incorporated

Voice of the Price System

by The Peripatetic Technocrat

'Men's thoughts are much according to their inclinations, their discourse and speeches according to their learning and infused opinions.'—Francis Bacon.

A Penny For Your Thoughts

A penny isn't much in terms of Price System values but that is about all your thoughts are worth if you are one of the millions of Americans who rely on the customary sources of public information. By this we mean the self-called 'free press,' the radio, the popular magazines and non-fiction literature and that illegitimate offspring of the fourth estate, that saccharine voice of business, the 'house organ.'

In all history there has never been a people so deluged and deluded with misinformation as the inhabitants of North America at this particular stage of development of their social structure. Never before in history has any area attained the technological advancement characteristic of America today. The things developed during the last generation and the events occurring as a result of this are numerous, complex and intertwined. They are so advanced over, and different from, the developments of preceding generations and so fraught with national import that the

social picture as a whole seems to be highly confusing.

This is largely so because we approach the problem with the ancient concepts of social life and the verbal tools of yesterday's seven thousand years of human toil, hand tools and scarcity. There is a vast difference between the status of science today with its concepts solidly established in physical laws and the hoary ideas handed down to us from ancient cultures. This inequality of development has set up an irreconcilable conflict between the outworn agrarian-handicraft ideologies of our forefathers and the scientific concepts necessary for this generation to live and prosper in the Power Age. This conflict in our social structure is the lush field where Price System propaganda flourishes.

*'Little Jack Horner
Sat In A Corner—'*

We Americans individually are the smartest people on earth but collectively we are the largest aggregation of suckers who ever quietly acquiesced to want in the midst of plenty. Here we are on the richest Continent on earth which offers an abundance of everything to its inhabitants and we haven't enough collective sense to assess the situation correctly. Even a mule has better sense. Nobody ever heard of a mule either starving or foundering himself

in the midst of plenty. We do both. When we can't get to the plenty, as is normally the case, we starve with Christian resignation. When we do get to the plenty, as in time of war, we founder ourselves with hoggish glee.

The only thing we never had any scarcity of on this Continent, and which is more abundant today than ever before, is propaganda. Most people think of propaganda as something fostered exclusively by enemies outside of America. We hear a great deal about German, Japanese, British and other forms of foreign propaganda. Such agitation does exist in our midst. It is the psychological arm of European and Asiatic fascism designed to conquer 'the richest loot in all history,' North America. It has been broadly publicized and today most well-informed citizens can recognize Hitler's line when they hear it. Even the native fascists, who peddle the foreign line, have been tabulated, sorted and labeled by the efficient efforts of the FBI. However, the native fascists who peddle the native line are not so easy to corner.

There are symbols in the 'minds' of men which stand for things and events in the external world. The total sum of all such symbols in all 'minds,' after eliminating duplicates, is the sum total of our knowledge of all things and events in our environment.

'Words Are — The Money of Fools'

Terms derive their meaning not from the dictionary definitions of scholastics but from the way the great mass of people use them and the framework of reference within which they are used. As S. I. Hayakawa puts it, in *Language in Action*: 'Looking under a hood, we should ordinarily have found, 500 years ago, a monk; today we find a motorcar engine.' Propaganda means any systematic body of concepts or beliefs designed to influence a course of action. Note here, specifically, that a body of facts which *dictates* a course of action does not constitute propaganda. The intent to deceive, or influence, is not present.

The fact that the Price System press has more or less restricted its interpretation of propaganda to mean foreign agitation is excellent camouflage for the native propaganda of the American Price System.

The lag between our ancient ideas of social life handed down from the age of scarcity and the concepts of science and technology by means of which we live today has produced a situation wherein the old ideologies, no matter how suitable they may have been to the past, now function as a body of propaganda to resist social change and maintain the status quo.

This would not be important if it weren't for the fact that social change is being forced upon America, willy-nilly, by the impact of technology. This makes it extremely important for all of us to realize that we will have to relinquish the status quo and adapt

ourselves to a new status, whether we want to or not.

Our Hindsight Is Wonderful

The retarding effect of this institutionalized propaganda upon social change is incalculable. There are whole libraries full of the stuff. It is incorporated into our educational system. It is a part of our moral beliefs. What is more important, these concepts, constituting propaganda against social change, are part and parcel of the system of trade and commerce. The institution of business just loves them. They are welded into its devious operations of buying and selling natural resources for private profit.

The human being responds to its external environment through the mechanism of the conditioned reflex which is a purely automatic but tremendously complex nervous control mechanism. These conditioned reflexes are subject to manipulation through the device of controlling the environment.

The retrogressive concepts of the Price System are legion. It would take a dozen volumes and more time than one man is allotted to adequately portray them all. We are born to the babble of their philosophy: 'Adam's sons are born in sin'; 'All babies are savages'; 'Man was made to mourn.'

We drag up our children to the same vacuous ideas that our parents used on us: 'A child should be seen and not heard'; 'Don't ask so many questions'; 'Mama knows best.' In fairy stories we put over the same line on our little citizens: 'Every cloud has a silver lining'; 'There's a pot of gold at the end of the rainbow'; and 'They lived happily ever after.' We enter school to the joyous ringing of the bells and listen wide-eyed: 'Figures don't lie but liars sometimes figure'; 'Reading maketh a full man'; 'There are two sides to every question'; 'Use your common sense.'

We get married with the symbolic ring of their slavery, pledging troth to that trilogy of incompatibilities, love, honor and obedience. We go to bed with them at night and arise to their hollow echo in the morning: 'Early to bed and early to rise makes a man healthy, wealthy and wise.' We work with them every day: 'His brow was wet with honest sweat'; 'A penny saved is a penny earned'; 'Go to the ant, thou sluggard.' When we get ready to leave this madhouse we die to their doleful dirge: 'Going Home, Going Home'; 'We will meet on that beautiful shore.' Finally, when Gabriel blows his horn and we all line up before the pearly gates, while the roll is called up yonder, some one is likely to shout: 'Blessed are the meek for they shall inherit the earth.'

'Roll On, Thou Dark Blue Ocean'

These are only a few lighter examples of retrogressive concepts in

Price System propaganda. This propaganda is not new. It was not invented by Corporate Enterprise to keep the people in subjection. It has been accumulating in folklore and tradition for thousands of years. It constituted the simple, homely wisdom of the simple handicraft-agrarian society that endured for ages. We inherited it along with the institutions out of which it sprang.

It is impossible to escape from this propaganda. It is omnipresent. It blares forth from the radio, the movies, the lecture platform and the school room. It stares at us constantly from the press and from magazines and books. It leers at us quietly, tier upon tier, in the subdued atmosphere of libraries. It is so much a part of our daily life that both those who receive it and those who dish it out are almost unconscious of the process. Nevertheless, it molds our reactions into Price System behavior patterns. It makes us conform to the Rules of the Game. If we know what is good for us, we dare not go counter to this propaganda. It is the psychological arm of the Price System which, along with its ecclesiastical, economic and political arms, is assigned to the job of maintaining the status quo.

The human being requires a smaller number of repetitions to establish a conditioned reflex than a dog, and he can sustain a higher number of orders of conditioned reflexes than a dog can. It is of this that a superior intellect largely consists.

While we cannot escape from this propaganda to any extent, we can study it, recognize its nature and define its technique of operation. Once this is accomplished we escape from its control over our thoughts. The same type of analysis which has been made of foreign propaganda can also be applied to the standard, everyday Price System propaganda. The splendid work done by The Institute for Propaganda Analysis, now defunct, on fascist propaganda will serve as a guide.

With the permission of the publishers *Harcourt Brace and Company Inc.* we herewith reprint the seven Tricks of the Trade of propaganda. They are taken from Chapter 3 of *The Fine Art of Propaganda*, edited by Alfred McClung Lee and Elizabeth Bryan Lee, copyright 1938.

Paste These In Your Hat

Name Calling—giving an idea a bad label—is used to make us reject and condemn the idea without examining the evidence.

Glittering Generality—associating something with a ‘virtue word’—is used to make us accept and approve the thing without examining the evidence.

Transfer—carries the authority, sanction and prestige of something respected and revered over to something else in order to make the latter acceptable, or it carries authority, sanction and disapproval to cause us to reject and disapprove something the propagandist would have us reject and disapprove.

Testimonial — consists in having some respected or hated person say that a given idea or program or product or person is good or bad.

Plain Folks — is the method by which a speaker attempts to convince his audience that he and his ideas are good because they are 'of the people' the 'plain folks.'

Card Stacking—involves the selection and use of facts or falsehoods, illustrations or distractions, and logical or illogical statements in order to give the best or the worst possible case for an idea, program, person or product.

Band Wagon — has as its theme 'Everybody—at least all of us—is doing it.' With it the propagandist attempts to convince us that all members of a group to which we belong are accepting his program and that we *must* therefore follow our crowd and 'jump on the band wagon.'

Practically all social control is effected through the mechanism of the conditioned reflex. All habit formation, all language, all 'thinking' is little else than the human being's response to miscellaneous stimuli, internal and external, in accordance with his existing conditioned reflexes.

The Proof Of The Pudding

A knowledge of these seven methods in the use of the spoken and written word by which propaganda is

put over allows us to separate the device from the idea and examine the idea on its own merits. However, it is not enough to be aware of the devices of propaganda. One must also be able to analyze any statement in terms of physical operations.

This sounds difficult but it isn't. Any concept in the 'mind' must stand for something that exists (a thing or event) in the physical world around us. If any concept does not have this direct relationship with something real in our environment, then it obviously exists only inside our heads and cannot be measured or tested. Such concepts must be handled with the circumspection due their fragile status.

To illustrate this principle, let's take two questions. 'Are there parts of nature forever beyond our detection?' This question is devoid of physical meaning because there are no operations by means of which it can be tested or answered. Now for a different type of question. 'Does the shamrock grow only in Ireland?' Here is something with physical meaning for we can perform physical operations to determine the answer.

Even in books on semantics and propaganda one finds sweeping statements about 'truth,' 'justice,' 'democracy,' 'liberty,' etc. To say that these concepts have no meaning to us would be stretching a fact. The trouble is that they have too many different meanings. Their interpretation is a matter of individual preference. Even semanticists handle them carelessly.

We are making this distinction between the devices of propaganda and

the operational concept for the sake of clear understanding. The Seven Tricks of The Trade is the method by which the Price System puts over its propaganda. The operational concept of science is the yardstick by which the reality of any idea can be tested. The language of science is in terms which are rigorously definable in operational concepts. This can never be propaganda as we understand it. The fact that science can be and often is prostituted for Price System purposes is characteristic of Price System methods of operation.

Of no less importance in social control are the conditioned inhibitions. If they are taken young enough, human beings can be conditioned *not to do almost anything under the sun. The things they are conditioned not to do are called 'wrong,' and vice versa. An individual's present behaviour is the sum total of his acquired reflexes.*

Count Them One By One

Let us consider the seven Tricks of the Trade seriatum. We'll present a statement of Price System propaganda to illustrate each device. Following it will be another statement on the same topic in the language of science. This parade of examples will serve three purposes. It will break down some of the regular Price System 'hoey' with which we are deluged daily, into its component, silly elements. It will furnish a yardstick with which to measure similar guff.

Finally it will illustrate the language of science by means of which alone we are able to interchange a correct understanding of our American social problems in this Power Age in which we live. Here is the first example.

Name Calling Device

The idea of abundance for all is a crackpot theory of crazy engineers.

Notice the 'name calling' words 'crackpot' and 'crazy.' The effect is to repel one at once from any serious consideration of the subject. Notice the misuse of the word 'theory.' By inference we get the idea that abundance for all is a theory only of crazy engineers. Therefore, the idea of abundance is crazy too. After all, haven't we always had the poor with us? The entire subject is dismissed by giving it a bad label, so that we will reject it without further investigation. Contrast the above statement with the following one.

There has been a verifiable analysis made of America's capacity to produce which shows beyond doubt that it is possible to distribute an abundance of goods and services to all citizens now.

This is a direct statement of fact. It must stand or fall on its assertion that the said analysis is verifiable. It is an operational concept because it is possible to relate it directly to things and events in our physical environment. It says exactly what it means and means exactly what it says. Science does not use the name calling device.

Glittering Generality Device

America is more than a people; America is more than a nation; America is the apotheosis of all that is right.

This statement tells us nothing informative about America. It is a pure case of glittering generalities. There are no data incorporated to indicate the reasons for America's greatness. Instead it is exalted in one breath to the divine status of equality with 'all that is right.' The word 'right' is the glittering generality. No one knows exactly what 'right' is. It exists only inside our individual heads in highly disparate interpretations. There is no common agreement on what 'right' is, since it is not a real concept. Consequently, we cannot perform any physical operations to relate it to the things and events in our environment but only to what we 'think.' 'Right' is whatever we think it is at any given time and place. Contrast this with the following statement.

America is the number one technological potential of the world and no method of social governance now existing can bring about the highest functioning of its endemic setup of geologic conformation, equipment, technology and personnel.

Here is a whole bookful of information about America in one sentence. Any citizen possessing knowledge of our country's resources and technology can understand it. This statement is not propaganda for or against anything. It merely recites existing facts. Science does not use glittering generalities.

If we wish to understand the world about us it follows that we must use a language whose structure corresponds to physical structure. Man is entirely meaningless and inexplicable except in relation to his physical environment for he is conditioned by his relation to it.

Transfer Device

Free Enterprise is the American Way.

Here is a good old standby of the Price System. It tells us exactly nothing about the characteristics of the thing called 'free enterprise,' i.e., where it came from, how it operates and what its net social accomplishments are, if any. Is 'free enterprise' the way of the two percent of Americans who chisel and live in abundance or is 'free enterprise' the way of the great majority who work when they can and live in enforced scarcity? Deponent sayeth not. Of course not! The deponent's purpose here is to transfer some of the prestige of something that is revered over to something questionable in order to make the latter acceptable.

Do you mean to say that 'free enterprise' is trying to make black seem white? The answer is 'yes.' Then what about the American Way, is there such a thing? Yes, there is a way of life that is applicable to all and can correctly be called the American Way. It is not what the chiseling minority of Americans would

like to have the great majority of citizens think it is. In the following paragraphs we will straighten out this pretzel of propaganda.

The American Way is the way of the world's greatest industrial civilization, the application of physical laws by quantitative and qualitative measurement to its social and industrial problems, the voluntary acceptance of scientific controls, and the production and distribution of abundance, security, equal opportunity and real democracy to all citizens from birth to death.

If we take an inventory of everything in our external environment we note objects, forces, things. This inventory will find no ideals, principles, essences. The most powerful microscope cannot find them, nor can they be revealed by mathematical equations. Physical science knows them not.

Here is an operational concept of what constitutes the real American Way. It is the partial application of these principles that has made America what it is today. These principles are intrinsic to the physical America in which we live. Their partial application was perforce compulsory in the past because that was the only line of development in our expansion as a nation. 'Free Enterprise' just went along for a free ride.

'Free Enterprise' never was either free nor enterprising beyond a certain point in its development. In

America that point was reached a generation ago. The so-called American Way of 'Free Enterprise' never did, does not now, and never can exist for any but a small minority. It's a physical impossibility. Of course, any one can open up a peanut stand, peddle shoestrings on the sidewalk or sell apples at the corner. Is that the American Way? Seventy-eight percent of the world's installed horsepower of machinery, 73 percent of the world's graduate engineers, over 1/2 of the world's known resources, the largest body of technicians and skilled personnel on earth, the most advanced technology known anywhere, 19 percent of the world's land area and 10 percent of its population thunder NO!

The American Way is not the picayune way of 'Free Enterprise' with its chiseling and corruption, its politics and profit, and its regimentation to the dictatorship of scarcity. This muddling, unproductive-non-distributive (except in wartime for an extra large profit), wasteful system of trade and commerce dubbed 'Free Enterprise' by its chief beneficiaries is not native to America. It is a part of the ancient Price System culture imported from the old world and put to work ravishing the natural wealth of this Continent.

The American Way is the way of science and technology which have made America great in spite of the century and a half long corruption of its politicians, the pillaging of its 'Empire Builders,' the picayune social brains of its 'Tycoons of Business' and all the 'cockroach capitalists' who

are forever bellyaching about 'free enterprise.'

The actual role of 'Free Enterprise' throughout American history has been that of one of a number of bloodsucking leeches which, now that some of them are being shaken off by the trend of events, are bawling for freedom for leeches to live off their host, so that their own position may remain secure for a little while longer. Science does not use the transfer device of propaganda.

Abstract concepts are first created in our 'minds' and then objectified by nonfunctional language. They have no operational significance since there is no referent for them in our external environment. It follows that such concepts cannot be measured.

Testimonial Device

Eminent economists have made a study of scientific social ideas and declare them to be unsound.

Now, isn't that just too ducky. You can't get around that phrase 'eminent economists.' It is very respectable testimony. What does it matter if there are a dozen conflicting theories on economics and that the statement does not say which school studied these ideas? What does it matter that economics is not classified by any one above the fourth grade as being a science? What does it matter if economics is a controversial melange of opinions? The testi-

monial device consists in having some respected group or person say that a thing is good or bad. 'Many movie stars use Blurp's and Blurp's face cream, it makes them beautiful.'

You will notice that the statement says that 'eminent economists have made a study of scientific social ideas.' Now, it is highly unimportant whether the social aspect of science is considered sound or unsound in any one's opinion. The important point is whether or not its analysis and synthesis are correct. In order to determine this one must make the same scientific study of physical America that social scientists have made. If the facts uncovered and the measurements taken jibe with theirs or are at variance, then only can one determine anything worthwhile. You can't judge the quality of Blurp's and Blurp's cold cream by its Crossly rating nor the conclusions of 'eminent economists' by their skill in splitting hairs or juggling opinions. Following is a correct definition of economics.

Economics is the study of the pathology of debt and how to keep goods and services scarce.

Here is a statement of fact devoid of propaganda, although it is necessary to comprehend the social aspect of science in order to understand it. Once grasped, however, it will be seen at once why 'eminent economists' have denounced the social aspect of science. The two are completely incompatible. One is dedicated to the study of debt whereby scarcity is maintained. The other is dedicated to instituting abundance by means of

technology. In spite of this opposite-ness one will not find any propaganda against economics in any scientific social literature. Science does not use the testimonial device.

Only that which is real is measurable. Objects, forces, things are the only realities which can be discussed intelligently. They alone have meaning in reality. What useful meaning any abstract concept has can only be measured by the context in which it is used.

Plain Folks Device

What is good for business is good for you.

Here is a bit of Price System propaganda that sounds plausible. It resembles the parable about the rich man and the beggar Lazarus who was thankful for the crumbs that fell from the rich man's table. No doubt Lazarus also thought that what was good for the rich man was good for him. That is the behavior pattern business is trying to inculcate with this propaganda. Following is an operational concept of business.

The institution of business operates to exploit the natural resources of this Continent and its people collectively for all the profit the traffic will bear.

Regardless of how much business pats itself on the back, that is a correct statement of how it functions. If business ever became crazy enough to consider the welfare of the Continent and the people it exploits, it

would have to go out of business immediately. It would be smart for business to cease using the 'Plain Folks' device of propaganda. Some day the people might take it seriously. That would be bad for business. Science does not use the 'Plain Folks' device.

Card Stacking Device

Hitler uses the methods of science to control Germany's social order and that is what makes nazism so efficient.

Here is an example of stacking the cards against the presentation of any proposed solution of American social problems by the use of scientific methods.

If you recall, the card stacking device involves the selection and use of facts or falsehoods, illustrations or distractions, and logical or illogical statements in order to give the best or the worst possible case for an idea, program, person or product.

The statement is a mixture of facts, lies and false comparisons. It is a fact that fascism uses a mixture of science and pseudo-science to some extent in the operation of its social order. These methods are used for the dominance of a few over the great majority, and not for controlling the social order as a whole on a basis equitable to all the human components involved. Fascism uses pseudo-science when convenient, not for the solution of social problems but for their suppression.

By inference the above bit of 'card stacking' is also 'name calling.' It attempts to attach all the repulsive

connotations of fascism to any American social program based on the methods of science. Contrast this fascistic propaganda against the social aspect of science with a definition of fascism stated in operational concepts.

Fascism is a reversion to a lower order of civilization based on human toil and hand tools; it is a barbaric network of compulsions in race, religion and economics; it is the perversion of science and technology to the perpetuation of scarcity for the great majority with wealth and special privileges for the favored few; it is the consolidation of all minor rackets into one major monopoly for the preservation of the status quo.

Here is a verifiable analysis. Any one can collect the facts upon which it is based. As such it cannot be propaganda. The type of social retrogression characterized as fascism is contrary to the natural destiny of America. American technology is laying the foundation for a higher form of civilization, not a lower one. Science does not stack the cards; it sticks to the facts.

Band Wagon Device

'Join the growing circle of smart housewives who lighten their labors with HI-DEE-HA-HA kitchen cleanser.'

'The Christmas spirit lies deep in the heart of man; do your Christmas shopping early.'

'Make your vote count on the win-

ning side; vote for Luke X. McGlucke for Governor.'

'Get in on the ground floor; invest in Squedunk's Handy Widgits now.'

Here are only four of the host of bandwagon slogans we hear all the time. Their purpose is to get us to hurry up and do something because all the other smart saps are doing it. Jump on the bandwagon and let the suckers walk. Get rich quick. Be smart. Be on the winning side. Avoid the crowds. Get there first. Squeeze somebody else out. To hell with the other fellow. Me first. That's the psychology of the bandwagon device.

An abstract concept cannot be endowed with reality by using synonyms. This substitutes one abstraction for another. Thus we enter a maze of ever higher abstractions mistaking symbols for reality; and peopling our environment with a demonology of absolutes and spurious entities.

Following is a statement of urgency involving exactly the opposite psychology.

America must choose between Science and Chaos.

This sounds like a use of the 'bandwagon' device of propaganda. Nobody likes or wants chaos, so it appears they are being urged to jump on the 'bandwagon,' or else. The average man dislikes being forced to choose between two things and the semanticist dislikes two-valued orientations. We are not concerned with either of these dislikes here. The

point is what do we mean by 'science' and 'chaos' and is there any other choice available?

The term 'Science' in a social context means the application of scientific principles to social problems and social governance by science. The term 'Chaos' in such a context means civil disorder approaching the point of complete social breakdown. Social chaos can take many forms but in any form it will be hell on earth for the average man. There is no such thing as a nice, kind, orderly, Christian chaos. There's just plain chaos and it is just plain hell for everybody concerned.

'Capitalism' that latest stage of the Price System in America is dying on its feet. The entire North American Continental Price System has been rendered invalid by the impact of technology upon its structure. What vitality there is left in society in North America today comes from other sources than the traditional 'Capitalist' institutions.

From now on the American Price System can proceed in only two directions. It can collapse and be succeeded by a higher, more efficient form of social governance designed along scientific lines or it can revert to an earlier stage of its development when it was at a lower and slower order of operations. In the event this latter happens, the population or its living standards will also have to be reduced accordingly. Here is where chaos will enter the picture. In the event the Price System yields to science, there will have to be a diligent,

foresighted and forthright application of non-price system principles to social problems. It is, and will be, a race between social organization and social catastrophe.

One thing is certain; America cannot muddle along much longer. Our Continental growth curve has passed its peak under the Price System. If we are smart enough collectively, we can stabilize it at a high level for a long time to come. We have the men, machines, materiel and the 'know how' to do it. If we continue to be smart individually but stupid collectively, the lightning is sure to strike us down and write 'finis' to the dream that was America. Most of us will not even be here to read the last chapter of our history when it is written. Yes, indeed! America *must* choose between Science and Chaos. Science does not need to use the 'bandwagon' device of propaganda.

The structure of language should correspond with physical structure. The word is not the thing but only a symbol of the thing, or event, referred to. Keep that clear. Structurally spurious language is the breeding ground of propaganda.

How Long Is a Rubber Band?

This just about concludes our excursion into the field of propaganda. Men are not motivated primarily by the use of words or the misuse of them, but by their physical interests. You can lecture all day to a starving

man about the sacredness of property rights and the stomach will still deny the head. Nevertheless, mental concepts are a powerful, secondary conditioning factor in the human makeup. When physical conditions are not too unbearable, men are, in the words of Sam Walter Foss 'Prone to go it blind along the calf paths of the mind, and work away from Sun to Sun to do what other men have done.' Such being the case, it is necessary to clear away as much mental rubbish as possible from our collective social consciousness. This makes the going easier all the way around.

In the beginning we defined propaganda as any systematic body of concepts or beliefs designed to influence a course of action. We also specified that a body of facts which dictates a course of action is not propaganda. Perhaps an example will serve to clarify the difference.

If you want to win an election, you erect a systematic body of concepts designed for that purpose. You take all the minority pressure groups into consideration and make up a set of promises to suit each one. Then you gauge the opposition's weaknesses and make another set of promises to convert them to your advantage. Then you circulate around among the electorate, waving the flag, kissing babies and engaging in sundry allied political activities. If your propaganda is carefully enough worked out and skillfully enough delivered, you may win. Compare this with a body of facts which dictates a course of action.

Suppose you want to build a bridge across San Francisco Bay? The factors here which influence your course of action are already determined. You do not build a body of concepts to suit the job; you find the facts which control the problem and then go accordingly. The height, breadth and weight of the bridge are not amenable to propaganda. They are determined by such factors as the stretch of steel, the varying temperature of the air, the type of bedrock underneath and the curvature of the earth. Your course of action is dictated by the facts involved. All you have to do is figure them out and get your decimal points in the right place. Such a body of concepts is not propaganda.

Men think and talk in symbols. To make a statement is to symbolize a thing or event. The point of all talk is to discover what the symbols stand for. Unless this is accomplished nothing comes through but empty sound waves.

*'When In The Course of
Human Events—'*

It is not a far cry from solving the problems involved in building a bridge across San Francisco Bay to solving the social problems of the entire North American Continent. The modulus and calculus are the same. What is more, the problem is of the same order of complexity and

magnitude, relatively. That is to say, social problems are now technical problems, not political nor moral problems. It is only in these fields and similar ones that propaganda can flourish.

Communication is a two way process. The hearer's 'mind' works as hard as the speaker's. The scientific method in language is the only method which men can use to communicate with each other. Facts are for scientists the ultimate things from which there is no appeal.

Science, of course, can be used in any way. It is not a conscious entity but a body of knowledge and a method of approach. Under Price System methods of operation whoever sits in the seat of sovereignty in the social order controls society and all of its appurtenances, including science. In a scientific social system, no man or group of men would hold sovereignty over the social order. That would defeat the primary purpose of such a system. If it is to be scientific, it will have to be governed by a design based upon existing facts and changing from time to time as new facts become available. All men will be subject to the design. The directing control in a scientific social system could not go beyond the design. Their function will be limited to assuring adherence to the design only, and to its modification by the methods of science when necessary.

Sovereignty will reside in the social design itself.

Here is where the body of thought called **TECHNOCRACY** differs from every other systematic body of concepts in existence. It is not propaganda and it is not prophecy. It is the social aspect of science, comprising a body of facts which dictate a certain course of action. For this reason Technocracy's analysis and synthesis cannot be neatly classified and disposed of as propaganda. Neither can it be catalogued as the composite desires and opinions of a body of scientists and engineers imbued with humanitarian motives. It must be accepted for what it is.

After we have tested out our last futility, doodled with our last petty Price System project and been smoked out from behind our last excuse, there **TECHNOCRACY** will still be. In the long run, we will have to recognize that it is a social program dictated by a verifiable body of facts. There is no rebuttal possible either in economics, ecclesiasticism or politics, because the body of thought called Technocracy includes the best of all these and much more besides. There is absolutely no answer to **TECHNOCRACY** anywhere. And—this is not propaganda!

'Something is wrong when a youth whose parents were penniless was put in jail for five months for stealing \$2.50, whereas a civilian who profited by illegal war contracts was merely fined and an Army officer was merely reduced in rank for the same offense.'—Russel W. Ballard, director of Hull House, Chicago, Ill., as reported in the *Chicago Daily News*, July 7, 1944.

Three Is Not a Crowd

A Story About Roses

by Robert Bruce

Scene: Technocracy Hall on West Randolph Street, just at the edge of Chicago's loop and a block from the river.

Time: About 1:00 A.M. one night in early spring.

Characters: One Technocrat and two pedestrians.

Randolph Street is rather dark and deserted at this point and time. Traffic has thinned out to a trickle and only a few pedestrians hurry along toward the river to get a late suburban train at the Northwestern Station. The traffic lights at the corner have just been turned off for the night and only a few taxis and an occasional ancient street car rattle by. In between this sporadic noise, the street is very quiet. It's an off-night downtown.

Inside Technocracy Hall a lone member, somehow left over from the night's activities at the Hall, sits before a desk in the front office. The Hall, a ground floor arrangement of reception room, office and meeting space, is dark. The window lights are out and the *Flying Wing* and literature display is illuminated only dimly from nearby street lights. A single 60 watt bulb burns in the desk lamp where this member sits struggling with a composition. The single light splashes a cone of reflection on the ivory and gray walls in the dark hall.

The front office is partitioned off from the reception room near the entrance and the office door is closed. The member cannot see out onto the street but he can hear the taxis and streetcars rattle by. In the quiet periods in between he can distinguish the footsteps of pedestrians on the sidewalk outside.

As they near the Hall, the sound of leather soles striking the hard sidewalk increases in loudness. When a passerby is right in front, the click of his footsteps is at its loudest. As he passes on, the sound dies away and is lost. Once in a while a pedestrian stops and looks at the dimly illuminated window display. Others walk right on by without stopping.

As the hour grows later, the sound of passing footsteps becomes more infrequent. The distant noise of the Loop dies away to a subdued hum. Theaters have long since dumped their crowds out onto the street. Except for the News Reel Shows, the last movie house has flickered out its last scene. The faithful followers of Hollywood's interpretation of the American scene are wending their several ways toward the subway, the elevated and the railroad stations. In the quiet street the footsteps of the few pedestrians become louder and more distinct.

While this member is sitting there alone in the darkened Hall, trying to

express something of the vast body of thought known as *Technocracy*, a double pair of footsteps sound out as they approach along the sidewalk. The street is otherwise deserted at the moment and it is very quiet. The steps grow louder. He can tell from past listening that two men are hurrying along toward the railroad station and that they are almost up to the Hall.

Suddenly one high-pitched voice speaks out on the quiet street with these words: 'Look there, Joe, what it says: Section 1, Regional Division 8741, Technocracy Incorporated. I thought Technocracy died ten years ago.'

The one called Joe must have taken a quick look at the Section insignia painted on the two front windows, for his booming answer came back almost instantly: 'Hell, No! Technocracy never died! Didn't you know that?'

The two unknowns didn't even slow down. Their footsteps beat a loud tattoo on the hard sidewalk. There was a second of silence in this peripatetic conversation. The sound of their footsteps began to die away as they passed by. Then the first one replied: 'No, I didn't know.

'In no era of economic history has there been a successful campaign against the strong trend of change during the world crisis, and the writer feels that the coming world crisis will be no exception to the historic rule. The time is short for the thinking business and economic leaders, and the reporters of their thinking, to begin a plan to change and strengthen their basic institutions so that we can have a

Well, what do you know about that!'

The sounds of both voices and footsteps then died away toward the river and a peculiar stillness hung over the street for another moment. An approaching rattletrap street car broke the spell.

The lone member sitting at the desk straightened up. He realized suddenly that he wasn't alone. Out there on the street, hurrying to get home, were two unknown American citizens talking about Technocracy. Two men suddenly confronted by a window sign with the word 'Technocracy' had started talking and both of them knew something about it.

If it weren't for the fact that you just don't chase people on dark streets at one o'clock in the morning in Chicago, if you know what's good for you, he would have hurried after them with some TC leaflets.

As it was, he turned back to his composition and strangely enough the words and idea sequences began to flow forth more easily than before. He reflected to himself: 'I'll bet there's a lot more people than we imagine who know something about Technocracy.'

Remember the story about the roses?

system of abundance that is so glibly talked about in the news, but so little understood.

'You cannot have a system of abundance based on a financial and credit foundation that was designed to carry a structure of economic scarcity.'—Excerpt from a letter written to M. S. Rukeyser by the President of an industrial company in Milwaukee, as published in the *Los Angeles Examiner*, June 23, 1944.

The Moron's Delight

Two Paradoxes of Technology

by R. W. Herring

Only One Way To Add Two and Two

The first paradox of modern technology is that while it requires a great deal of accumulated knowledge to create a highly complex machine, almost any moron can operate it. Any child can operate a radio. It took engineering brains to create it. Our social system in America today is the most complex physical mechanism that ever existed anywhere at any time. Yet we are operating it with methods that would delight the heart of any dyed-in-the wool moron. We operate it as though all the parts were separate and complete units, instead of being integral parts of the whole which must be operated in proper relationship to the other parts. Is it any wonder that our social system is well on the way to breaking down?

Business and politics are the morons at the controls of the individual parts of our technological social system. Every private enterprise moronically insists upon operating its part when it pleases, as it pleases, without regard to the resulting effects upon the other parts or the mechanism as a whole. The public senses this and exhibits unrest and concern. Unable to discern the trouble, it takes refuge in escapisms; some go to the beer garden, while others go to

church, so to speak. Both are seeking escape from what they fear and cannot understand.

Our social dilemma is not as difficult as it seems, however, once the problem is correctly stated. Here is a brief outline of the American social problem.

First, we must understand that our social problem is a physical problem, a technical problem. This postulate is inherent in the technology of American civilization. It is an axiom in the working out of physical problems that the choice of methods of solution is in inverse ratio to the scale of magnitude and complexity of the problem. The tougher the job, the fewer ways there are to do it. When any physical problem reaches a certain point in magnitude and complexity, only one method of solution is possible, and there is no choice whatever left to us. This is the point we have now arrived at in our social operations in America. Our problem can be solved by one method and no other. Paradoxically, then, our problem, instead of becoming continually more complex, becomes steadily easier to understand and solve, once the factors are all stated.

Taboos Of The Power Age

There are certain things that can't be done. You cannot take all the

parts of a highly complicated machine, toss them on the floor for a bunch of kids (or morons) to play with and expect them to assemble a complete, smooth running machine that will perform the function for which it was designed. Neither can you take a technological social system and hand the various parts to politicians and business men and expect to get a smooth running machine that will turn out the physical requirements of the people of America. The American social mechanism consists of the individual technological parts: the farms, mines, factories, communications, transportation, educational, recreational and entertainment facilities, plus that 'Orphan Annie' of business and politics, distribution. This is obviously a problem of engineering design, of integration and coordination. Engineers, using the methods of science, have designed and built all the various parts of our social system. They and they alone are capable of assembling them into a social mechanism that works properly.

It cannot be done by lawyers dealing with those imponderables called 'right' and 'wrong,' for these have nothing to do with the physical world. 'Right' and 'wrong' are abstracts and represent nothing real in the physical world. Consequently, there is no operation that can be performed with them which will result in a close agreement among men as to their exact characteristics. Being non-existent in reality, they are not subject to physical laws. Thus there will always be as many different in-

terpretations of 'right' and 'wrong' as there are individuals possessing such concepts. Agreement being impossible, it is therefore necessary to abandon 'right' and 'wrong' as being of any use in solving social problems. This does not mean the abandonment of law and order and the institution of anarchy in their place. It does mean that the affairs and relationships of men and social operations must be brought into agreement with the dictums of the physical world of reality. Technological equipment knows nothing of 'right' and 'wrong.' Your car operates just as well going the 'wrong' way on a one-way street as it does going the 'right' way.

Politics Is The Art of Balancing Opinions

Neither can an efficient social mechanism be assembled by politicians for they deal in beliefs, prejudices, opinions and traditions. Your radio cares nothing for these things. You may be of the opinion that a light bulb can be substituted for a burned out power tube in your set. But, your opinion notwithstanding, it will not work. You may believe that you can operate your radio by plugging it into any light socket anywhere. If it is an A.C. set and you plug it into a D.C. line, you will soon discover, in terms of fireworks, just what effect your beliefs have upon its behavior. Perhaps you dislike having children fiddling around the radio, fishing for horse operas or the women of the house listening to sob-

dramas. The radio knows nothing of your 'high' taste or of the 'low' taste of others. It 'gives out' with whatever is put into it and responds only to the proper manipulation of its controls, regardless of the age, sex or 'brains' of the operator. The same holds true of every other piece of technological equipment, small or large.

Neither will the philosophers ever solve America's social problem, for they deal in morals and attitudes. Technological equipment doesn't give a hoot about either of these. There's nothing moral or immoral about a machine. It's purely a question of function. A locomotive will run over an innocent ten-year old girl, if she gets caught out on a long viaduct, just as readily as it will crush any hardened old sinner. Nobody, ever yet, violated a physical law. You can entertain morals and attitudes about man-made laws, you can circumvent and violate them, but physical laws just keep on operating, willy-nilly.

Economists, bankers and business men are likewise useless in any projected solution of social problems. Economists study the pathology of debt and how to keep goods and services scarce. Bankers buy and sell debt. Business men exchange goods and services for a profit. If you have a car, it will function to the consternation of all these, whether there's a million like it on the road or not, whether there's a mortgage tacked on it or not, whether it was sold at a profit or a loss. Your car is not concerned about these things; it

merely obeys the function of its design.

Engineering Is Measurement

Only engineering methods can create all the intricate parts that go to make up an automobile and put them together in such relationships that you can hop in, step on the starter, shift the gears, press down the accelerator and speed thoughtlessly on your way. Likewise only engineering methods can draw a design for the vastly more complicated mechanism that is our social system today. In this fact lies the only probability that it will ever operate to produce and distribute all the physical requirements of the American people.

Engineering is neither moral nor immoral. It has nothing to do with opinions, beliefs, prejudices, traditions, attitudes, philosophies, etc., none of which exist in the physical world of reality. Their only place of domain is in the 'mind' and we would do well to segregate them there. We live in a physical world. The production and distribution of the goods and services necessary for our existence and enjoyment of life cannot be done by speculating on the imponderables. It is a physical problem. The engineer must of necessity deal with the facts of the world we really live in. He is trained to deal with physical things and their relation to one another. Thus, he is best qualified for the big job that must be done in America.

A few years ago the lawmakers of a certain state passed a law requir-

ing that the culvert pipes used in the construction of highways must have a circumference of exactly three times the diameter. The reason given was that $2 \pi R$ was too hard to figure. Now, $C=2 \pi R$ is a physical relationship discovered by scientists and used by engineers. Both are powerless, along with the lawmakers, to alter it. Physical phenomena are not subject to alteration by agreements among men. Consequently, to this day, all culvert pipes in that State have a circumference equal to $2 \pi R$ despite the fact that it is against the law.

All attempts to apply non-physical concepts to physical things are certain to end in failure. Physical phe-

nomena majestically ignore any and all attempts to inject non-physical concepts such as 'right,' 'wrong,' 'opinions,' etc., into their operations.

The American people today face both opportunity and disaster, abundance or annihilation. Shall we apply social engineering to our way of life in America or go down to oblivion? Technocracy Inc. is the only social engineering organization in America today. It offers the blueprints and specifications for the designed operations now called for by the march of events, both in the war and in the more perilous peace that will follow.

Technocracy can afford to wait. Can you?

You Said It Brother!

'It is time for America to recognize that the job of postwar planning is being botched. We are botching the job. Congress is botching it. The common denominator of (all) planners is their conservatism. In general, they are men whose bias runs against the kind of bold and unprecedented action that we need. We need not only planning for business, but planning for the people. The postwar job is twofold: first, to bridge the gap in the flow of purchasing power during the transition period; second, to maintain that flow at full flood thereafter. Timid and piecemeal efforts cannot succeed. We cannot put 15,000,000 men to work solely by giving business the green light. The industrial machine must have gas in the tank and oil in the crankcase. It is government's responsibility to see that it runs on all cylinders in peace time as in war.' Excerpt from *Chicago Sun* editorial of May 6, 1944.

'Scientific achievements, accelerated by the war, will bring about revolutionary changes with a suddenness that will be almost unbelievable when the war is over,' according to Walter J. Murphy, editor of *Industrial and Engineering Chemistry*.

'After the war we will be in command of a productive capacity many times greater than that which we possessed a few years ago. We must never return to the philosophy of scarcity as the remedial agency for our economic ills,' Murphy said.

'Scientists . . . are releasing new products, new materials, new processes, that can and must bring a new order of life to all. Without this ability to supply the temporal needs of mankind the Four Freedoms of the Atlantic Charter will be only a futile gesture. Only when these needs are satisfied will the predatory instincts in man be stilled.' *Chicago Tribune*, March 24, 1944.

Technology Will Get You

(If You Don't Watch Out)

Nibbling Around

In order to save manpower and equipment, the Puget Sound salmon canning industry today was placed under a concentration order by Coordinator of Fisheries, Harold L. Ickes, and as a result fewer packing plants will operate this year than in any year since 1893.

Only three plants will operate this year instead of the usual eleven, although one standby plant will be available if the runs warrant its operation. A single plant, the largest in the area, will pack salmon for nine different firms. This plant, at Anacortes, Washington, has a capacity of 10,000 cases a day and storage facilities for 100,000 cases. The other operating plants will be at Deer Harbor and La Conner, Washington.

A saving of more than 525 cannery workers and tender operators will be effected by the consolidation plan, and 27 cannery tenders will be released for use in other activities. There will also be considerable savings in the use of diesel oil and the maintenance of salmon cannery equipment.—Excerpt from release of the Department of the Interior, Information Service, U. S. Government, April 12, 1944.

They Said It Couldn't Be Done

'Out of the Department of the Interior today comes a saga of the American home front, dealing, among other things with a guy named Sam—G. I. Joe's uncle in mufti.

'It concerns 125,000,000 pounds of aluminum that last year wouldn't have gone into planes to spearhead the invasion of fortress Europe if Sam hadn't doped out a way of stepping up power production at Grand Coulee when people said it couldn't

be done.' Sam is Samuel Judd, 52 year old senior engineer of the Bureau of Reclamation. Sam won an award of excellence and a raise of \$200 a year.

'Shortly after Pearl Harbor the Grand Coulee power plant, mightiest war weapon of the nation, needed two good turbines and needed them sorely. If the west powerhouse, then nearly completed, could be supplied with two big turbines right then, it could cut two years off the time required to make and install the ones that had been ordered. That would mean increasing aluminum production by 125,000,000 pounds a year. It would make a lot of planes just when we needed them most. But where to get the turbines?

'Somebody suggested that there were two good ones at the Shasta Power plant, down in California. They could be spared. But they were built for counterclockwise operation, and the penstocks (inlet pipes) at Grand Coulee had been constructed for clockwise turbines. The Shasta turbines couldn't be inverted.

'That was a poser.

'The construction engineers were stumped. So was Sam—at first. But he got to thinking. He scratched his head and looked the situation over. Then he came up with an idea. "You can't make water run up hill," he reasoned sagely "but you can change its course to one side." Why not bore into the concrete construction from another angle, change the course of the penstocks and make the water hit the turbines from the right side? It was a daring engineering idea and might upset a major part of that giant structure. But Sam put it over. And as a consequence Grand Coulee has produced over two billion kilowatt-hours of electricity more than otherwise would have been possible.' From *Department of the Interior Release*, May 21, 1944.

The Handwriting Is Getting Bigger

From United States Department of Agriculture Release
Plain Facts About the Forests

Ten of the most frequently misunderstood facts of the forest situation in the United States have been listed by the Forest Service, U. S. Department of Agriculture. These misconceptions, with the truth in each case, are:

One-third of the United States is forest land so there always will be plenty of timber.

Fact is, of 630,000,000 forest land acres in the U. S., 168,000,000 are not suited or available for growing timber. 77,000,000 are virtually non-productive as a result of destructive cutting and fire, and all but 100,000,000 of the rest has been cut over and produces only a fraction of what it might.

Almost as much usable timber still stands as was cut since the birth of the Nation.

Fact is, records show that the total volume of standing timber in the U. S., was reduced almost 40 percent from 1909 to 1938, to say nothing of recent intensive logging necessary because of the war.

Eleven billion cubic feet of new growth occurs each year—so we shall always have an abundance.

Fact is, nearly 17 billion cubic feet, of 50 percent more than total growth, was cut or destroyed in 1943, while in sawtimber alone

drain was almost twice annual growth.

If fire were kept out, forest growth would equal forest drain.

Fact is, even if the 2 billion cubic feet lost each year to fire, insects and disease were all saved, drain would still exceed growth by a substantial margin.

Only about 2 percent of the sawtimber stand is cut annually so the supply of some 1,764 billion board feet should last 50 years—even if there were no new growth.

Fact is, the cut for lumber is only 60 percent of total yearly sawtimber drain, while only about two-thirds of the supply, or thereabouts, is accessible to loggers at reasonable cost.

There are no timber shortages, only shortages of labor and equipment to get out the timber.

Fact is, there are no longer adequate sawtimber supplies accessible throughout the country. Dependence for high-quality timber is largely on remaining virgin forests of the Pacific coast. There are actual shortages of such high-quality, specialty timbers as yellow birch, yellow poplar, Port Orford cedar, airplane spruce, and shipbuilding oak.

Millions of trees are being planted. *True*—but up to 1940, all agencies,

public and private, established only 3½ million acres of successful plantations, while the National Resources Planning Board sees a 25-year, 32-million-acre planting program as necessary to meet the nation's "most urgent" tree-planting needs.

"Tree farms," or private timberlands managed on a continuous-crop basis, represented as becoming general practice.

Fact is, splendid as the "Tree Farm" movement is, spokesmen for private industry claim only 7,700,000 commercial forest acres—out of 341,000,000 privately owned—as having been "designated" as "Tree Farms." So long as the rules set up for "Tree Farms" are followed, productivity will be maintained, but

of this there is no positive assurance for the future.

Public control of cutting practices on private lands—would that not conflict with freedom of enterprise?

Fact is, proposed public regulation would require owners only to cut timber according to rules established through thoroughly democratic processes, but would not touch the question of when to cut or how fast. They would stop forest destruction and deterioration and keep the land reasonably productive.

Our private forest lands are being well handled.

Fact is, the latest authoritative government estimate shows that 80 percent of all cutting on private land is still done without conscious regard to future crops.

This Explains A Lot

'U. S. ARMY IS STUCK with a lot of fourth-rate officers here at home. And not much can be done about it unless the top-men decide on drastic action. Back in 1941-42, thousands of not-so-good industrial executives, wardheels and play-boys managed to wangle commissions through politicians. They have advanced, automatically, to be Captains, Majors, Lieutenant-Commanders and the like and fill plush, but important jobs, in Washington and at the major bases. Specialists from industry and professions who have been drafted in recent months will have to serve as privates and noncoms for the duration because the political appointees are "in" and officer quotas are filled. That item accounts for a lot of bungling at both War and Navy Departments.'—From *Pathfinder*, April 17, 1944.

'We who were stopped on the Rhine by . . . an Armistice (a negotiated peace) in 1918, know that the Armistice was the first step away from lasting peace. It was dictated by civilian and not military command. The question of victory is not a political issue, it must be answered by military command.' James R. Durfee, Antiga, Wisc., American Legion, July 2, 1944.

More than 90 percent of the Army's paper requirements during the past year were met by 'coarse' grades made largely of waste paper.

'Free enterprise spent \$2,130,000,000 on advertising in 1943. What about the paper shortage? Don't be silly, let the next generation worry about it.

From the Camera's Eyevew

The Achilles' Heel of Technology

The Weakest Line Is The Strongest

Achilles was an ancient Greek hero whose exploits in war were written up by Homer, about 900 B.C. He was reputed to be physically invulnerable except in one place. According to the story, his mother had dipped him, while an infant, into the River Styx. This immersion rendered him invulnerable except in the heel by which she had held him. After many adventures, Achilles was killed, at last, by a wound in the right heel.

This story is a part of elegant literature, a myth. But it has a point worth considering. There is a similarity of a sort between the invulnerability and weakness of Achilles and the invulnerability and weakness of modern technology in America. In most respects, technology seems 'invulnerable' but it is utterly dependent upon a slender thread of precise adjustment and control. Technology is tenuous.

Electric power comes in over a thin wire. Shut off that flow and you convert the finest industrial plant in the country into a pile of junk, fit only as a nesting place for birds and rats. Stop the flow of power to our big cities and they become smoldering morgues for millions of people in a few days. Drop a few dozen blockbuster bombs in the railroad yards at Chicago, Kansas City and a few other points and you disrupt a Continental transportation system. Manufacture, transportation, communication and agriculture are basic in America's technological structure. Unless they function smoothly, social welfare and public health decline toward zero and education is a useless pretense. First things always come first.

The greater technology becomes under the Price System, the easier it is to destroy. This paradox is a result of the clumsy interweaving of some physical laws with the Price System of trade and commerce and the exclusion of many more important ones because their adoption would invalidate the entire status quo.

What Color Is A Chameleon?

Industrially, technology is the application of physical laws to the production and distribution of goods and services. Socially, it is the adaptation of the social structure to the verities of the physical world in which we live, and obedience thereto. The Price System is the devious, opportunistic methods of the institutions of business, finance and politics, while its social structure is the reflection of a hodge-podge industrial system that grew up out of mercenary instincts developed to a pathological degree by long ages of scarcity. Technology and the Price System are incompatible in the nature of things. Here is the focal point of social instability in the Price System and the source of technology's weakness today.

The average American is interested mainly in how much he can chisel out of society and how little he can get away with giving back in return. There is scarcely any social morale in this land, except in the Armed Forces, which is not interpreted in terms of personal gain. Our mixed-up culture of technology and chiseling Price System methods has reached a point of development wherein its operation and safety is dependent upon an ever-increasing number of physical factors. As social instability grows and social morale sinks lower, technology becomes ever more tenuous.

The Achilles' heel of technology is social violence. It must be strictly tabooed. Should internal strife occur, it will result in a major social catastrophe. There must be no reduction of America's great technology. Any party or group advocating social violence as a solution of America's problems is guilty of Continental treason. Amidst all the organized confusion in America today there is only one program that will make social violence unprofitable for any party or group; that will provide individual security through collective security; that will heighten social morale through a common objective; that will thus free technology from its tenuousness and guarantee the greater future of America. That program is **TECHNOCRACY'S VICTORY PROGRAM OF TOTAL CONSCRIPTION OF MEN, MACHINES, MATERIEL AND MONEY, WITH NATIONAL SERVICE FROM ALL AND PROFITS TO NONE.**

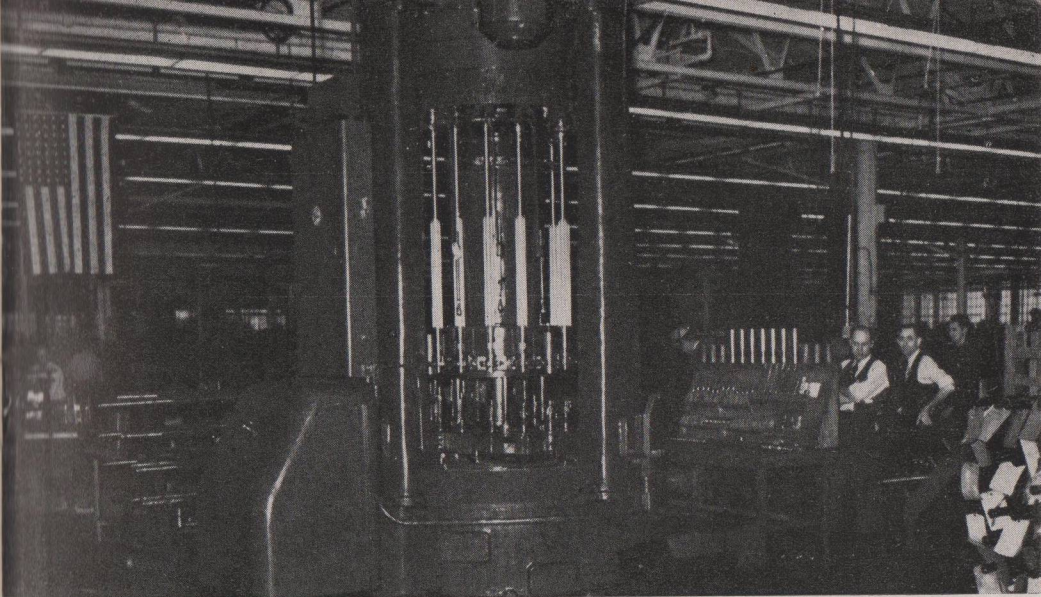


Photo: Courtesy General Motors Corporation

This 14 spindle vertical machine designed for chambering barrels on 20 mm anti-aircraft guns replaces 10 screw machines formerly used. It reduces machining time from one and one-quarter hours to four minutes. A great deal of training, knowledge of physical laws and industrial processes has gone into the design of this assembly. It displaces the skill of 10 operators and produces 19 times as much finished work. It is a complex, efficient machine, yet it is easy to operate. This is our first paradox.



Photo: Courtesy Monsanto Chemical Company

If you got the idea in the first picture you will be able to see how it is carried further here. This is the control room in the dehydrogenation unit at the Texas City, Texas styrene plant. Styrene is one of the raw materials essential to making Buna-S synthetic rubber. On this panel remote from the actual operations, the most minute variations in the flow line are recorded and adjustments made. Complex skills are reduced to a matter of automatic recording and simple adjustment, by precise control.

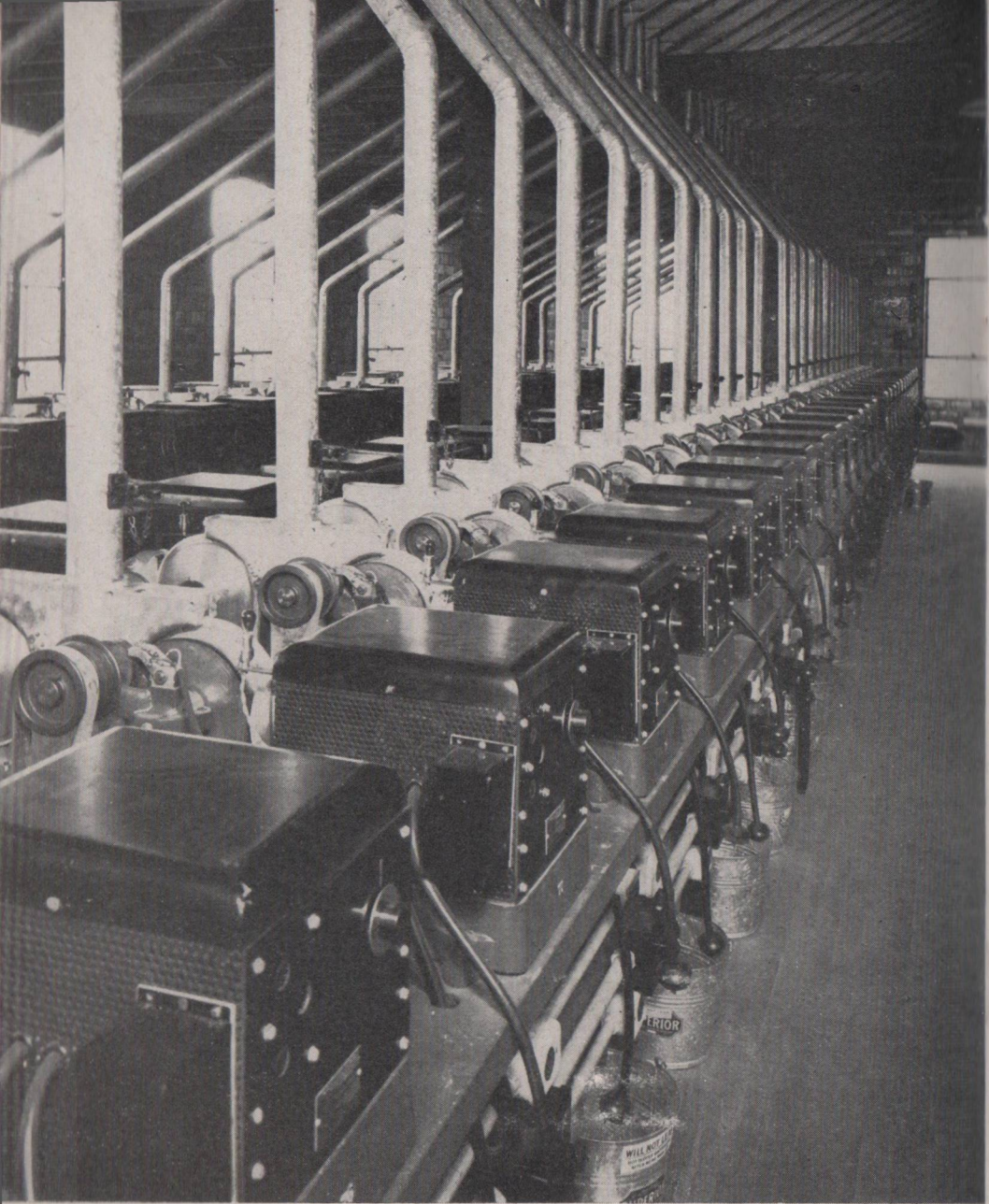


Photo: Courtesy General Electric Company

Here the technological process of reducing labor and skill to simple operations is carried to its ultimate development. This is a battery of photoelectric-thyratron bean sorting machines in action. No human attention is required except for maintenance. The process is fully automatic. The beans pass before electric eyes. The white beans get by but the discolored ones are flicked into a reject chute by metal fingers. A fine watch is a very intricate mechanism but even a moron can wind it up.



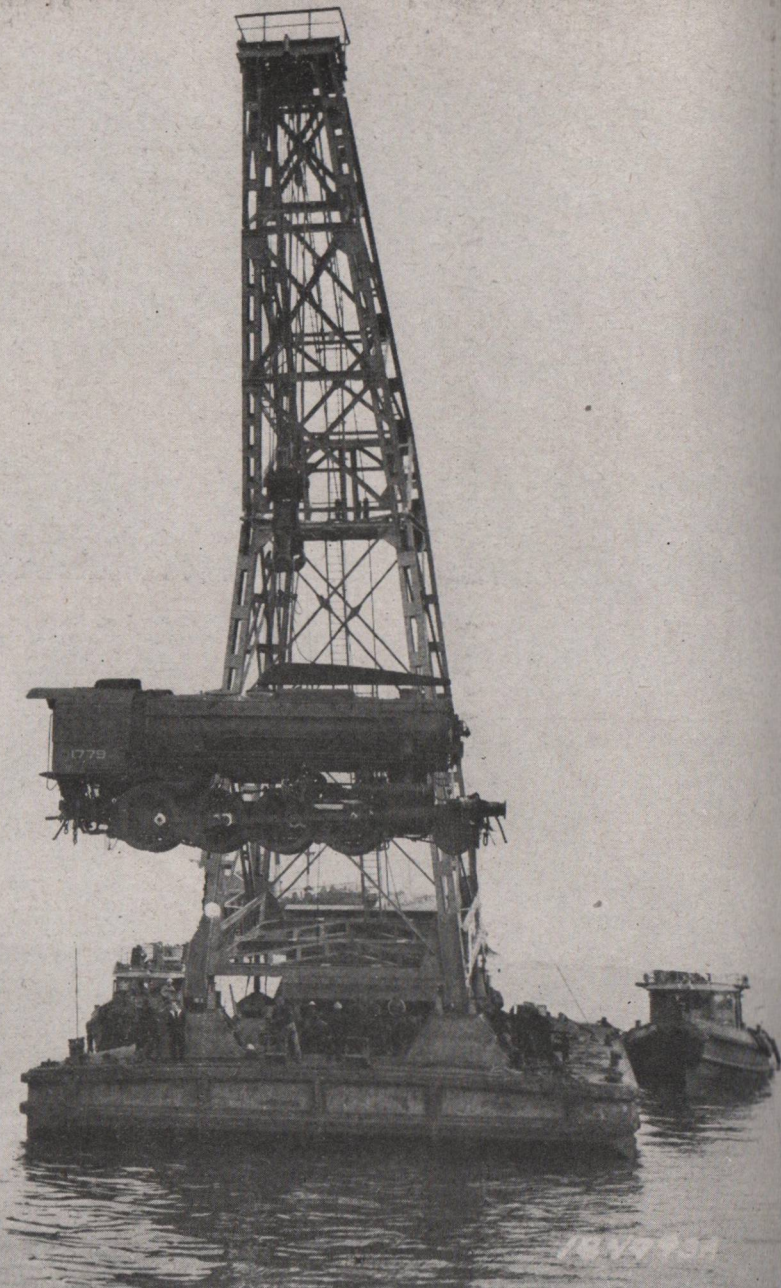
Official U. S. Navy Photograph

An interior view of the radio and pilot compartment in a PBM Mariner, Navy patrol bomber. Note the maze of dials and instruments. Most of the technology and skill represented here was almost totally unknown 40 years ago. It is a product of the Power Age and requires training, knowledge and precise control. The whole setup is highly developed, complex and tenuous. Yes, tenuous is the word, for its stability depends upon exact adjustment of coordinated factors. Any moron can ruin a fine watch.



Official Photo U. S. Air Forces

See what we mean? Intricate highly developed technology is easy to destroy. Here, Nazi flak has reached a Martin B-26 Marauder of the U. S. Army's 8th Air Force. The formation is somewhere over France. Flame billowed out from a direct hit and nearly enveloped one of the other planes. The bomber was destroyed and crashed while burning. All that fine machinery, technology, skill and personnel ruined in an instant. Mechanisms of the Power Age need constant and precise control.



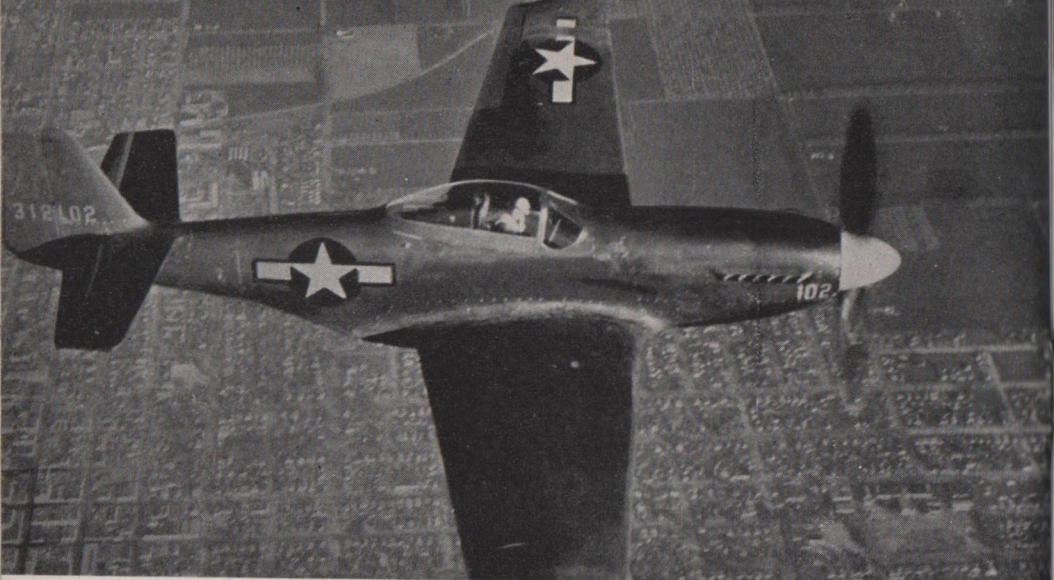
Signal Corps Photo

Notice the background painted out of this picture for military reasons. The most important part remains. Here is a 72 ton locomotive being unloaded by a floating crane, at Casablanca, French Morocco. It would be easier to destroy the locomotive than the crane. It is a far more complex mechanism. So also is our social system today far more complex than that of 40 years ago. Get the idea? Our social system, too, requires precise control for stability. The Price System promotes instability.



Here is a rugged little giant. It is engineered to the last decimal point. Sixty to sixty-five percent of all production time is consumed in handling operations and only 35 to 40 percent in actual production. This Towmotor has a capacity of 4000 lbs., can elevate its load about 12 feet at a speed of 40 feet per minute, and travels 8 miles per hour. There is a greater future for this mechanism in a technological control. There will be a heck of a lot more products handling then.

Photo: Courtesy Towmotor Corporation



Official Photo U. S. Air Forces

This is one of Uncle's latest air fighters, the P-51, Mustang. It is rated at over 400 miles per hour in level flight with a ceiling of about 40,000 feet and a tactical radius of 600 miles. The cockpit enclosure is of the 'teardrop' design with 360 degrees of visibility. The entire top can be rolled back at night, eliminating reflections from the instrument panel. Its high ceiling shows it to be turbosupercharged. The Mustang approaches the probable speed limit of propeller driven planes.

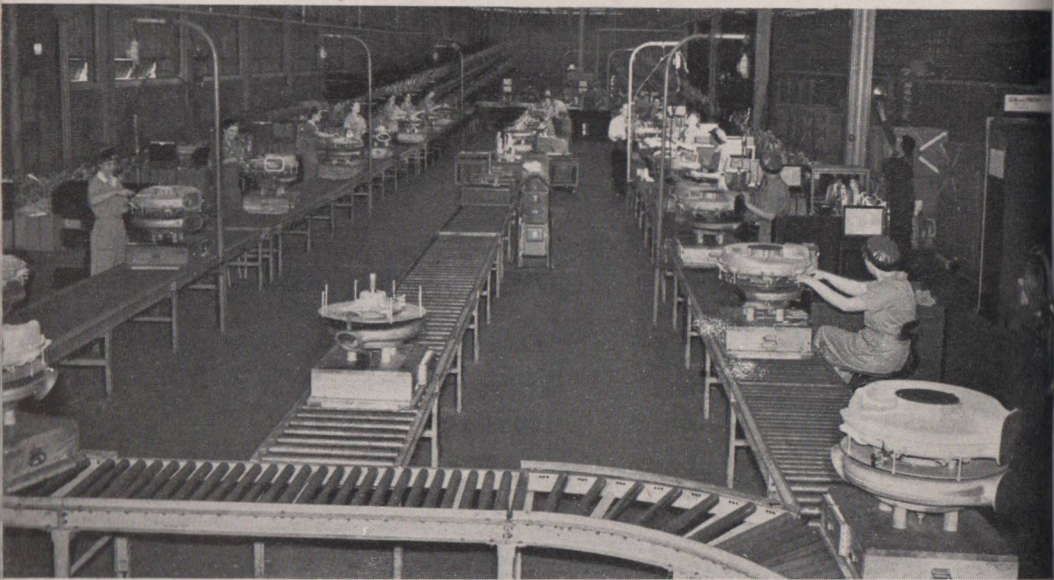


Photo: Courtesy General Electric Company

Here is the assembly line at the Fort Wayne turbosupercharger plant. An airplane engine must have oxygen in order to operate. The turbosupercharger scoops in and compresses the rarefied air of high altitudes. Operation is both directly from the crankshaft by a system of gears and by using the hot exhaust gases of the engine. The turbosupercharger provides near-sea-level air pressure to the motor, making high altitude performance possible. Here it is again: control, stability, tenuousness.

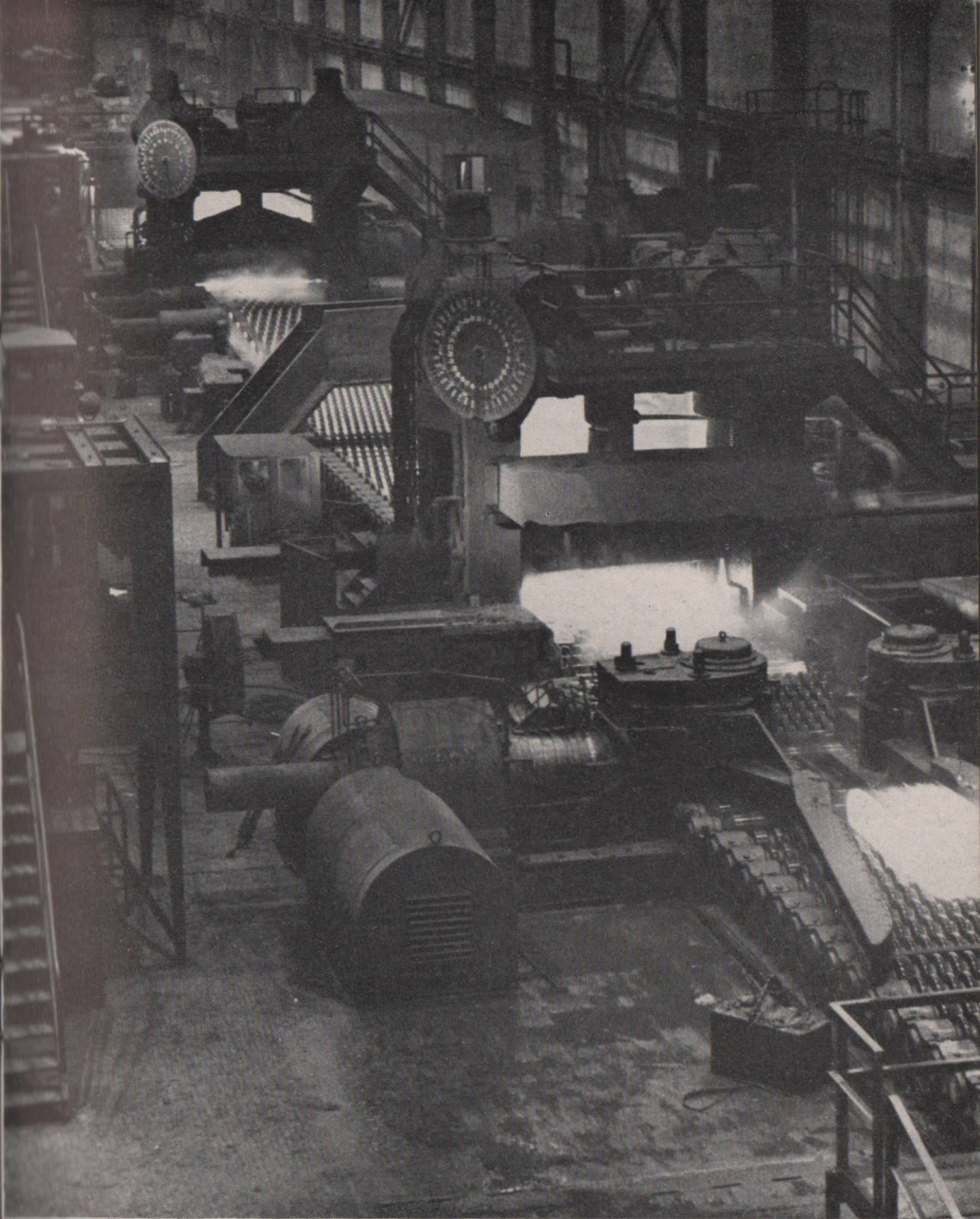


Photo: Courtesy Kaiser Company Incorporated

This plate rolling mill at Fontana, California, is rated at 300,000 tons of ship plate a year. You can count the number of men attending this installation on the fingers of one hand. Massive assemblies like this are fundamental and prior to most other industrial production but they are just as dependent on precise control. The power to energize them comes in over a thin, flexible wire, symbolizing the thin line of demarcation between advanced technology and the crudity of human toil and hand tools.



U. S. Army Signal Corps Photo

Here are some wrecked Jap power installations on Kwajalein Atoll after the 7th Infantry Division U. S. Army took over on January 31, 1944. The tenuous line has snapped under the impact of a superior technology bent on destruction. In these pictures some paradoxes of technology are illustrated. What applies to one, or a series of advanced technological mechanisms, applies equally to a social system that has become dependent upon technology and the conversion of extraneous energy for power to operate.



Photo: Courtesy West Coast Lumbermens Association

'This is the forest primeval.' Virgin timberland in Oregon. In this raw physical environment it is hard to survive and prosper by human toil and hand tools alone. Under Price System operations social stability is extremely tenuous and easy to wreck. Destroy America's technology and the few survivors go back to nature's first principles. A technological society is easy to control by technological methods. Social stability comes from collective social interest. Social violence is TABOO in the Power Age.

Canada: David or Goliath?

'3 Years, 3 Months, 3 Weeks and 3 Days'

by R. F. Novalis

Go North, Young Man

How can a country like Canada with only one-half of one percent of the world's population produce 95 percent of the United Nations' supply of nickel, 75 percent of its asbestos, 20 percent of the zinc and mercury, 15 percent of the lead, and 12½ percent of the copper, to say nothing of 33 to 40 percent of the aluminum?

Canada can do this because of her high use of technology and energy in an area rich in resources. As *Modern Industry* magazine recently stated: 'Canada has developed her own know-how, her own technology.'

Back in 1939 Canada's central electric stations had 7½ million horsepower of turbines; at the beginning of this year Canada's hydro-electric power capacity was 10 million horsepower. This 2,500,000 added horsepower, plus 52,000 new machine tools are what have enabled Canadians to produce more minerals, munitions and machines in order to aid in defeating world fascism. Last year's all-time high output of electric power by Canadian stations was 40,377,000,000 kilowatt-hours, world's second largest electricity production. The largest was in the U.S.A., totalling over 220,000,000,000 kilowatt-hours.

A generally overlooked result, as in the case of the United States and Mexico, is that many of these new

production plants and facilities are going to be available for the use of North Americans *after* the war. For instance, there's—

1. The Shipshaw waterpower dam, with an installed capacity of 1,025,000 hp. and a potential capacity of 2,040,000 hp.
2. The Canol oil pipeline, completed this April.
3. The Alaskan highway, connecting the U. S. with Alaska through Canada, made available for travel in November, 1942.
4. The 10 new Crown companies owned and operated by the Canadian government, one of which, for instance, is Research Enterprises Ltd. Its 6,500 employees make optical instruments, *a commodity never before produced in Canada*, in a brand new plant (near Toronto) covering three-quarters of a million square feet of factory floor space. Besides its exclusively military products, it makes binoculars, clinometers, telescopes and cathode-ray tubes, all peacetime technological equipment.
5. Then there are the new rubber plants, but more of that later.

In war materiel, Canada's delivery of the 'goods' has made her fourth largest producer among the United Nations. Hitler has called Canada the 'richest prize of the British empire.' If it were not for the fact that we cut short their infiltration into Greenland a year or so ago, some of his Nazi airmen could have hopped from there to the northern part of this Continent.

Made In Canada

A sample of the usefulness in this war of Canadian-made munitions* and equipment were the 20,000 army trucks, armored carriers and ambulances employed in the Libyan desert to help route Rommel. Canadian ordnance plants turn out 350,000 artillery shells every month, plus 25 million rounds of small-arms ammunition. More figures are available and could be quoted at length if that alone were the measure of Canada's new productivity and future.

The war's pressure has increased Canada's basic steel mill capacity from 2,300,000 tons per year to 3,453,000 tons annually between December, 1939 and July, 1943. Actual output of steel ingots rose from 1,383,000 tons in the year 1939 to 3,000,000 tons last year. A new continuous strip-steel mill is being planned by the Steel Company of Canada, Ltd., which operates nearly

*Canada's industrial productivity is so great that 70 percent of her war materiel is transferred to other Dominions, to England, Russia, and the U. S.

a third of the total national capacity already. Construction of the 300,000 ton mill may be started before the war ends.

For what purpose was the million horsepower Shipshaw hydro-electric dam built? Chiefly to supply the *extraneous energy* (in the form of electric power) required by the world's largest aluminum plant, at Arvida, Quebec, also new. The latter's capacity is one billion pounds a year. Canada also has her own magnesium plant.

Last January Canada's first synthetic rubber plant, owned by the government's Polymer Corporation, was put into operation. Its rated capacity, 38,000 long tons a year from butadiene, is greater than Canada's normal peacetime imports of natural rubber from British and Netherlands East Indies. And if you haven't already lost the cherished illusion that Canada is the 'land of ice and snow,' know that Canada is now *growing* rubber too. The Department of Agriculture gets an average of 5,100 pounds of crude rubber from each acre of kok-saghyz (Russian dandelion) planted in the 'eight experimental stations across Canada.'

Technology Is Thicker Than Water

Are Canada and the U. S. more interdependent now than ever before? We still have not equalized our exchange dollars nor abolished tariffs wholly. Industrially that boundary line has been violated and ignored during this war period more than at any time in its history in spite of all

the legal and traditional interferences of business and politics. Last year Canada produced 125,000 tons of nickel, an all-time high. In 1942 alone, our mutual interference-line was brushed aside by 1,100,000 tons of aluminum, nickel, copper, lead and zinc, and last year's deliveries southward increased about a fifth.

Canadian railroads already run on tracks in eight of our States. We supplied Canada with 2 million tons of steel last year to be added to her own 3 million ton output in making munitions. Every year Canada supplies some of our northern States with over 2 billion kilowatt-hours of surplus hydro-electricity. And we get 75 percent of our newsprint from Canadian forests. All these and more comparisons represent the *technological ties*—of highways, railroad tracks, pipe lines, high-tension power lines—between the 'world's two outstanding national entities in . . . technological production.'

Even our Price Systems are interwoven. Twenty-two percent of the capital in Canadian business is invested by U. S. citizens, and Canadians have a billion dollars of their own in U. S. businesses. There are 1,900 factories in Canada, an investment of more than two billion dollars, which are branches of U. S. firms. One U. S. life insurance company (Metropolitan) has more life insurance business in Canada than any Canadian underwriter. Anything affecting the Canadian flow of purchasing power and investment likewise affects U. S. business. That is because our two technologies are so

nearly alike and so interconnected.

Are Canada's technological trends similar to those of the United States? Take a single branch of one sequence, transportation, and note the long-term effect of efficiency in Canada's electric railways alone:

	1939	1941
Passengers carried	792,700,000	795,170,000
Freight carried	2,873,000 tons	3,265,500 tons
But total main track operated was down from..	2,071 miles	to 1,519 miles
And employees from	18,340	to 14,800

For more complete data on U. S.-Canadian trend comparisons see the May, 1940, issue of *The Technocrat Magazine*.

Have the U. S. school textbooks and newspapers educated us about Canada or the Canadians? One of those Gallup polls recently found that only 8 percent of the U. S. citizens interviewed could name Canada's population within a million, a fifth of them stating it was over 50 million, and that nearly three-quarters of the interviewees had the strange idea that Canada pays taxes to England.

It is still a surprise to many people south of the 'line' to know that all of Canada's population is actually less than that of the State of New York. Or that 'Since 1927 there has been complete independence among the British self-governing dominions . . . (due to) the Statute of Westminster.' (*Nation's Business*, special Canadian issue, May, 1941) Or, that to enter Canada from one of our largest cities (Detroit) you go south.

Then there was that dispatch from a Chicago newspaper correspondent in Edmonton, Alberta, dated November 16, 1942, headed 'JOIN U.S.? NOT A BAD IDEA, SAY MANY IN CANADA.' In it was one paragraph which read: 'And how does another ordinary fellow feel? Here's a train conductor: "I'm a Canadian born and bred," he said, and he had on seven 5-year service bars. "But that little imaginary boundary line down there has been a pain in the neck to me all my life."'

The officer chosen this May among all United Nations leaders to be administrator of the European liberated-territories is an engineer-general of the Canadian Army, Lt. Gen. A. E. Grasset, Canadian-born member of the royal engineers.

Defense Is Continental

This March Canada's relations with the third largest nation on this Continent, Mexico, had reached such a degree that Prime Minister Mackenzie King announced that an ambassador had been appointed to represent Canada at Mexico City for the first time, in the person of Mr. W. F. A. Turgeon. And the Mexican government decided it was time to reciprocate, sending Dr. Francisco Del y Caneto as ambassador to Ottawa. Why not? You can board a Canadian train in Canada and with one change (in Chicago) step aboard a Mexican-bound train.

All these are but evidences of a trend culminating in a single, unified

Continent. Howard Scott said in November, 1940, a year before Pearl Harbor, that:

'The citizens of the United States had better realize that we have a Continent to defend, not merely a country. . . . In order to defend adequately the Canadian territory, the government of the United States must be prepared to undertake a gigantic program of highway construction in Canada . . . in order to provide . . . access to our bases in Alaska and Labrador.'

Technocracy Inc. had been banned as an organization in Canada on June 21, 1940, but Technocracy in the U. S. that year prepared and published maps, showing the location of a defense base needed in Hamilton Inlet, Labrador, as well as a highway to Alaska through Canada. During the following year all other organizations, including the press and political parties and those 'committees,' debated and threw opinions back and forth across the country as to whether we could be attacked, needed defense or not, and why we shouldn't do anything. In the meantime Technocracy was quietly investigating the facts, publicly proposing and describing definite measures for Continental protection, only two of which are here mentioned.

On October 15, 1943, Prime Minister King himself announced that Technocracy Inc. was once more legal in Canada. In the intervening 3 years, 3 months, 3 weeks and 3 days these two and many other proposals originated by Technocracy had been

found vital and were carried out. Whether by their efforts or not, to Technocrats the net results toward Continental safety were and are the important factors. However, the overall prime proposal of Technocracy then and now, Total Conscription, has yet to be adopted in order to insure that we will win the peace for America.

When Howard Scott's statement appeared in the November, 1940, issue of *Technocracy* magazine, no attention was paid to it by the press or the public, busily engaged in argumentation while the German and Japs, as Technocracy warned, were preparing to attack.

AS REGARDS DEFENSE PROBLEMS, THE NORTH AMERICAN CONTINENT IS A UNIT.

Social Ceiling Zero

Monsieur Mossoni at Ste. Hyacinthe, Quebec, Canada, in 1937 stated:

The politicians can talk of the greatness and prosperity under such and such form of government. What we want, and what we shall work to attain by all our means, is a State completely Catholic, because such a State can only present the ideal human progress, and because a Catholic people has the right and the duty to organize itself socially and politically according to the tenets of its faith.

As reported by Senator T. D. Bouchard (Liberal, Quebec) in his charge in the Canadian Senate, June 21, 1944, and published in the *Vancouver Sun*, Thursday, June 22, 1944.

'The really dangerous American fascists are not those who are hooked up, directly

These are the exact words in which one of our most popular Price System weekly magazines, in its December 25, 1943, editorial page, finally comes around to locking the barn door more than 24 months *after* that December 7—the day we found the horse was gone.

What were *you* reading back in November, 1940? What are you reading *now*, aside from this particular issue of this magazine? Do you know where you're going, where your Continent is going?

In the next issue this series will be completed with some interesting information about the countries around the Caribbean Sea, the Technate's tropics.

or indirectly, with the Axis. The FBI has its finger on those.

'The dangerous American fascist is the man who wants to do in the United States in an American way what Hitler did in Germany in a Prussian way.

'The American fascist would prefer not to use violence. His method is to poison the channels of public information.'—Vice-President Henry A. Wallace in *Democracy Reborn*.

University of Denver researchers who recently quizzed citizens about the United States Bill of Rights repored that:

(1) 23% had never heard of it. (2) 39% could not identify it. (3) 15% gave hazy or wrong definitions. (4) 23% were reasonably acquainted with the first ten amendments.—As reported in *Time*, May 22, 1944.

Planning With Bathos

by Herb Graffis

Reprinted by Permission of *The Chicago Daily Times*, May 29, 1944

An example of talking and thinking without fully considering the facts was presented in Congress recently when a million dollars was appropriated for the purchasing and training of Seeing Eye dogs for blinded veterans.

Certainly everybody wants to do everything possible for blind veterans and civilians. And it is certain, too, that the tragic triumph of the blind person and the Seeing Eye dog is something that reaches right down into your heart.

Nevertheless, the emotional factor, to put honest emotion on a practical basis, has to take into account a few fundamental facts which Congress apparently skipped.

In the first place there have been to recent date 73 Americans blinded in the war. Of these about 10 percent, according to competent authorities, will be able to make use of Seeing Eye dogs. The cost of buying and training a Seeing Eye dog is approximately \$1,000. The dog's life in Seeing Eye service is seven years. The life expectancy of the blinded veteran is about 30 years. So, say that a blinded veteran could use five Seeing Eye dogs during the remainder of his life, the appropriation per individual would be \$5,000.

Medical authorities estimate that even with heavy casualties still to come the number of blinded veterans

will be around 250. High explosives in this war kill rather than blind when they land nearby. The same 10 percent of sightless veterans will be able to make use of Seeing Eye dogs. That means 25 Seeing Eye dogs with five replacements per owner will be required. The figuring winds up with \$125,000 being the closest possible estimate of the amount required in a Seeing Eye dog appropriation for veterans.

Yet one congressman got up and said the million dollar appropriation isn't enough. Emotionally the fellow is O.K. but the great trouble with a lot of this business involving planning for veterans is that it is stamped by fellows who are temperamentally as stable as the boys in the old time saloon backroom who used to sob in loud anguish when the singing waiter gurgled a mammy song.

It is to be doubted that legislators of such dispositions are qualified to direct use of a million dollars so it would be most effective for blinded veterans.

Having stumbled over dogs around my house ever since I can remember I sure am for a Seeing Eye dog proposition for veterans. But, plus a lot more evidence of realistic use of a million dollars or any much larger amount of money in reclaiming a good part of the future for blinded and otherwise incapacitated veterans.

I Test Flew the Flying Wing

by Clyde Pangborn

Condensed and Reprinted by Permission of *Flying Aces Magazine*, June, 1944

A famous pilot tells how the revolutionary craft flies and speculates on what it can mean in the postwar aviation picture.

In my opinion—and that is from the pilot's point of view—the most practical and already proven means for substantial improvement of the airplane both in economy and safety is through the greater development of the flying wing or lifting fuselage type of design.

The extensive official flight tests and operations which I have conducted with Vincent Burnelli's design here and abroad have convinced me of this.

For the excellent flying qualities of this multi-engined design are based on details and structures which, in the flyer's eyes, are of first importance.

The propellers, you will note, operate close together with no body between, strikingly different from a conventional manner. The advantage of this quality, though obvious for flying with one engine stopped, is immediately noticeable in the more efficient control qualities of the plane; for the corrective use of the controls to overcome the offset propeller thrust augmented by the drag of the stopped propeller is practically nil, and right or left turns are easily made.

This factor is exceedingly important in view of the U. S. Department of Commerce requirements that a twin-motored plane must be licensed according to its ceiling and payload capacity, when operated with but *one* of its motors and under satisfactory control characteristics. For, after all, practical flight on one motor, with safety, is one of the prime purposes of multi-engined design.

The broad airfoil of the flying wing is surrounded by all of the major load-carrying structure. . . . The wing beams are across the ceiling. The landing gear structure is at the sides, unlike the long tubular-fuselage construction of the conventional air transport, which is mainly a streamlined housing for the cabin section. The main load-carrying elements do not contribute to strength in a conventional job. . . .

The landing gear and tail wheel of the design contribute no direct shock to the lighter outboard wings or tail structure; the strains of landing and taxiing are directly applied to the deep-sectioned body and not on the more delicate wings and tail elements, as is done in the more conventional design.

That the body actually lifts a large percentage of the gross weight, as approved by the N.A.C.A. for design purpose, lessens the required area of the wings and relieves them of load,

with substantial relief of bending stresses throughout. The peak of the lift forces is in the center of the airplane, instead of being reduced in this critical load section by the addition of a non-lifting body element.

The body of the Burnelli UB-14 model supports 3400 pounds, or twenty-five percent, which is equal to the body structure plus the engine weight. It is understandable that the craft rides easily through rough air, maneuvers with less shock and landing strain throughout, and that such compactness of weight provides better stability and control qualities in operation. . . .

A notable quality of the design in the matter of safety is the fact that in operation over water, the wide body, which is water-tight, will serve as a boat bottom and float indefinitely. The body provides adequate buoyancy and has the stability required to serve as a life raft. The wings themselves easily can be arranged for quick release, to achieve this purpose entirely. And, since it is generally recognized that the land plane is of higher performance and economy than the more cumbersome flying boat, which depends on side floats for marine stability, an aircraft with the qualities of both is certainly superior.

With so much to be said on the credit side for the all-wing type of airplane, the question must be raised as to *why* it has not been put into use. The answer must lie in the resistance to change from the conventional designs to which everyone is accustomed.

Many analogies can be pointed out. The use of brakes for stopping, the tail wheel, hydraulic shock absorbers, controllable-pitch propellers, the cantilever monoplane, the wing flap, all-metal construction and other conceptions had been put into use and proved many years before they were generally accepted and incorporated concretely into the airplane.

But the flying wing, in practicality, flyability and usefulness is worth as much and more than these, once it is finally accepted as part of the aviation picture.

One of the fields almost immediately open to this type of plane is that of air freight. In postwar reconstruction, the ability to get materials to where they are needed—with economy and expedition—will be one of the most vital necessities. Air freight is the ideal medium. And new equipment to sustain the construction of the manufacturing industry during its conversion period and after will need freight carriers larger than those that will be left over from the war. The volume and weight carried by air must be comparable at least to that carried by a long distance truck.

As a pilot, it is logical for me to regard as a matter of great importance the fate of the military pilots after this war. That is one of the reasons I'm blowing a horn so loudly for air freight after the war—and for the flying wing which seems so ideally suited to freight carrying and so suited to what a pilot wants in what he's flying.

I'm going to reminisce a bit about

what happened after the last war. The difficult period of readjustment, with thousands of trained aviation personnel demobilized, was to some extent counteracted by the operations conducted by the exhibition stunt pilots and commercial barnstormers which a lot of World War I pilots became. It opened an earning field for aircraft operators and a market for some of the surplus military equipment which kept elements of the adolescent industry alive and active on conversion work and reassembly. . . .

But such matters as barnstorming will certainly not be with us to any extent after this war, now that aviation has become commonplace. It is an economic fact that aviation, in dollar volume, far exceeds the extent of the automotive industry during its peak years. The aircraft industry has now reached the beginning of its maturity and is far beyond the novelty stage it once held.

From the standpoint of economics, judgment concerning the competitive cost of air freight and truck freight

can be approximated from the fact that operating costs of air freight would be four times as much per pound or per hour as a long-distance truck. But if the *distance* travelled per hour is six times greater, the cost per ton on an equivalent load basis is less. In other words, the greater the distance, the less the cost. And, since air freight is practical for long hauls, it is much cheaper than any other method. . . .

Air freight is bound to come. In many instances, it is already here. And when it has finally grown beyond the initial stages, it is possible that the flying wing will be a tremendous factor in its development.

For this flyable, efficient, safe ship is one of the greatest factors to be considered in the development of air freight. From my own viewpoint as a pilot it is one of the best ships I have ever tested and flown.

We have the ships and the men to fly them. The rest is up to the future and it is my belief that the future of the flying-wing air freight carrier is very, very near.

What Is Freedom?

"Long after Pearl Harbor, German and Italian radio stations in the U. S. A. poured fascist propaganda into the ears of foreign-born Americans in their own language," Charles R. Denny, general counsel of the Federal Communications Commission told the Lea Committee of the House, which is investigating FCC's activities.

Denny said that when war came there were 200 radio stations in this country broadcasting in German and Italian. These

were not short-wave stations, he pointed out, but standard wave-length stations which could be received on the ordinary parlor radio. Their programs were readily available to the 12,000,000 foreign born in the U. S.' From *P.M. Magazine*, March 22, 1944.

'The human race is capable of the most extraordinary loyalty to unrealities. Otherwise there would be no professional politicians.' The late *Don Marquis*.

Primer of Technocracy

by Education Division 8741-1

WHAT IS TECHNOCRACY?

Extraneous energy, that is, energy derived from sources outside the human body such as coal, oil, gas, wind, falling water and the power of work animals, has always played a fundamental role in the progression of mankind and in his social life. Its role is becoming more important every year. America is in the Power Age now. The impact of energy and technology has torn our social structure loose from its ancient mooring. We cannot go back and to go forward requires designed direction along scientific lines. This series of articles constitutes an elementary introduction to the social aspect of science, the body of thought called Technocracy.

Background

'The social highway of history's yesterday is lined with the grave-stones of organizations, movements and human ideas that have lived and died. Hitherto in man's social history all movements which might have led to the improvement of man's well-being have been predicated upon a moralistic, philosophic preconception that by expropriating control from the dominant exploiting interests and acquiring their methods of exploitation, the products of any scarcity economy could be more equitably distributed. All of these movements in the past and today have been based upon the theory either that all social problems could be solved and that all social conflicts could be resolved by reducing the conflicting opinions to a common consensus, or that a transfer of title or possession or use from one group to another would work a social miracle; while

in other social movements has arisen the fanaticism that only one horizontal stratification of the social structure was entitled to usher in the pet utopia of their belief—their economic salvation of the human race.' From *A-1 Technocracy Magazine*.

These organizations and movements of the past and present were and are but attempted physical projections of imaginary things which have no existence anywhere in the external environment. They proceeded from the reflecting brains of great thinkers and the sympathetic hearts of great humanitarians. With due credit for their intentions, nevertheless their ideas were naught but personal interpretations of abstract concepts, arising from out of that illusory dream world of the inner consciousness. No wonder they passed back and must always so revert to the nothing from whence they

came. It is possible to project a physical thing into the inner world of imagination and make it do all sorts of funny things there. One can jump over the moon in the imagination. But it is not possible to project a purely imaginary thing into the physical world and endow it with reality because it didn't exist in the first place.

The world about us comprising our external environment is a world of things and events, of uniformity and physical laws. It is the interacting relationships between this world and the struggles of man for existence and expression that constitutes the nucleus of his major problems on this earth. As man learns more and more about the physical world, he becomes better able to adapt himself to it, and thus survive and prosper in it. The inner world of consciousness is too often used as an escape from the outer world of reality. Any attempted solution of social problems in America must be predicated on these facts. This approach need not conflict with any one's religion since, in its essence, the latter is a feeling and expression of veneration toward a superhuman power that is placeless and timeless, while social problems are a human thing of the here and now.

Characteristics

Technocracy's plans are technological in design, based on the facts of physical science. Man's hope for a greater future on this Continent must derive from an extension of the

principles of science to the operations of the social order. All moral, political and philosophical approaches to America's social problems are thus invalidated at the outset. Technology has solved the problem of production. Within the framework of science from which technology arose lies, also, the solution to the problem of distribution. Technocracy Inc. by means of arduous, factual research has worked out this solution. It has coordinated into an overall design of social operations a scientific system of society, wherein the general welfare of all the human components involved is of paramount importance.

The body of thought called Technocracy, like science, can be defined as threefold, that is, static, potential and dynamic. In the static sense, Technocracy is a body of verifiable, factual data, pertaining to American social problems. Potentially, it is a set of deduced conclusions and induced principles elaborated from this data. Dynamically, Technocracy is the application of these conclusions and principles to the problems of the American social order, so as to indicate solutions to those problems, and point out the most probable results that may be expected from the impact of energy and technology upon society.

In effect, this means the next most probable state of development of the social order. So it can be said that Technocracy as a whole is the scientific methodology for the determination of the most probable social adjustment between man and his physical environment on the North

American Continent. Thus, it is seen that the salient characteristics of Technocracy parallel the nature of science. The difference is in degree and scope. Science is all verifiable knowledge relating to all things thus far known in the physical universe. Technocracy is all of science in its relation to social problems. In other words, Technocracy is the social aspect of science. Its field is limited to the bedrock of measurable social problems. Technocracy is dedicated to the scientific organization and ad-

ministration of modern civilization on this Continent with reference to physical operations, such as: Agriculture and manufacturing, which includes all products of the forest, mine and sea, Transportation, Communication, Education, Public Health and Social Welfare. These are real and measurable because they and man and their relation to each other all exist in the physical world about us. They are the major means whereby we live in a modern society.
Next Issue: Methods of Technocracy.

Income Groups in Wartime

Over a third, 34 percent, of all families in the United States had incomes of less than \$1,500 a year in 1942. More than half, 53.5 percent, had incomes of less than \$2,000. Nearly two-thirds, 65.7 percent, had less than \$2,500.

This was the estimate, June 27, 1942 of the Office of Price Administration, Division of Research, in Estimates of the Distribution of Consumer Income in the U. S.

OPA estimated the distribution of the 32,650,000 families in the U. S. in 1942 by income groups as follows:

Over 1,400,000 families or 4.3% had incomes less than.....	\$ 500.00
Over 3,300,000 families or 10% had incomes less than.....	750.00
Nearly 5,800,000 families or 17.7% had incomes less than.....	1,000.00
Over 11,000,000 families or 34.0% had incomes less than.....	1,500.00
Nearly 17,500,000 families or 53.5% had incomes less than.....	2,000.00
Over 21,400,000 families or 65.7% had incomes less than.....	2,500.00
Only about 2,600,000 families or 8.0% had incomes more than.....	5,000.00
About 903,000 families or 2.0% had incomes more than.....	10,000.00

For the lowest third of the families, or those with incomes of less than \$1,500.00, the average income per family for the year was \$939.00.

“David E. Lilienthal, chairman of the Tennessee Valley Authority, explained here yesterday why he thinks that project can serve as a pilot plant in the development of resources for the entire United States.

“In most valleys rivers are a periodic curse,” said Lilienthal, “but in Tennessee Valley we have harnessed floods and

changed the power which causes them into an asset.

“One thing about postwar planning that hasn’t been adequately understood and emphasized is that natural resources are at the bottom of everything.” As reported in the *Chicago Sun*, May 1, 1944.

Technocracy and Your Trade

The School Teacher

by Anne Laurie

Teacher Is Tired of Apples

This total technological war is causing an upheaval in what is perhaps one of our most important institutions, the public schools. For the lure of big salaries in our war industries is causing an exodus of our extremely low paid public school teachers into war jobs. This exodus will have an adverse effect upon the educational competency of the next generation of Americans.

Do you know what the salaries of the public school teachers are? The average annual salary of public school teachers in all States in 1940-41 was \$1,470.00. Because each State controls its own school system, however, the range in the various States was very great. The average in Mississippi was \$568 per year, while in New York it was \$2,591. The one-teacher rural school average salary was less than \$700 annually. Increases since 1941 have been very small indeed. The larger cities of 100,000 or more population were offering in 1943 from \$2,100 to \$2,399 for 48 percent of the vacant positions, \$1,800 to \$2,099 for 37 percent and less than \$1,800 for 15 percent of the vacant positions. Nearly 8 teachers in every 100, or some 66,000, are paid less than \$600.00 annually. That's an average of \$50.00 a month, just as much as a

private in the Armed Forces of the United States receives. Only the private's \$50.00 is clear; in addition he is provided with food, clothing, housing, medical and dental care. The school teacher receiving \$600 annually has to pay for all of these necessities out of that \$50 per month. Is it any wonder that the rural turnover rate of teachers is 30 percent as compared to a turnover of 10 percent in the larger cities?

In two years, 1942-43, almost one-third, or 31 percent, of its trained staff was lost in the public school systems. Almost all of these teachers had spent from 2 to 4 years training to become teachers and had had one or more years' experience. In October 1943 in the United States we had to abandon 15,200 teaching positions because no teachers could be found to fill the jobs.

The attraction of higher earnings in war industries was luring teachers from the positions for which they had been trained. As a result, in the school year 1943-44 about 7 percent of our total teaching staff had less than the amount of training required for the lowest regular certificate. And, the teaching of children by persons not qualified for the work is second in seriousness for the children only to closed classrooms.

Skinflint School Boards—Attention!

As Benjamin W. Frazier in *Survey Graphic Magazine* for September 1943 in an article entitled 'The Teacher Shortage' puts it:

During the new school year, probably more than 300,000 school children will be without teachers for prolonged periods. Possibly 1,000,000 pupils will have teachers who are unable to meet the State certification requirements in effect before Pearl Harbor. Several million pupils will be taught by teachers whose qualifications are below the average of pre-war years. Recent national and State studies indicate that unless quick action is taken, even worse conditions are to be expected as the war continues. Investigations by the United States Office of Education, the National Education Association, show a steadily deepening crisis in the staffing of the public schools.

What, if anything, has been done to stop this exodus of teachers from the profession for which they have trained themselves? Some attempt has been made to alleviate the worst conditions prevailing. In cities of 100,000 population or over, the most important method used was replacing men with women. In all other types of school districts, the most important method was raising salaries locally.

Since the war began in Europe, teachers' salaries have risen an aver-

age of only about 8 percent whereas the cost of living has risen approximately 22 percent and wages in war industries more than 40 percent.

The Price System Must Maintain Scarcity in Education Also

Education is neither a State, city, nor rural problem. It is a national problem and if it is to be adequately handled so that children receive proper education, it must become of national concern and must be solved by national regulation. The *Chicago Sun*, October 9, 1943, made this very clear:

The education of American youth is, to a large degree, a national concern. Illiteracy in the poorer States is not their burden alone; it is the country's burden. New York and Illinois suffer when a Georgia "cracker" child is deprived of a sound elementary education. The ills of ignorance cannot be quarantined.

Nothing has been done to raise salaries on a national scale. Elementary school teachers in the Chicago public school system are still on the 1922 schedule of pay, most inadequate as any one knows to meet the higher living costs of a war economy.

The deplorably low pay of our public school teachers, aggravated by the war deductions, has not been much publicized by the teachers themselves. They are more reluctant than non-professional groups to press their claims for more adequate com-

pensation. There is a widespread feeling among them that since the public owns the schools and foots the bills for the educational service provided, it should see that the teachers who render such services are fairly compensated. The long-suffering teachers of Chicago waited until Christmas eve 1942 before receiving the announcement that the final 5½ percent of the 23½ percent salary cut which they had taken in 1932 and 1933 would be restored in 1943.

A very large number of children will receive a poorer quality of education because they are being taught by any one who can qualify for an emergency certificate, and this condition is apt to continue into the postwar period, for with the greatly decreased enrollment in teacher training institutions, the normal supply of new, well-trained teachers will be very small for a number of years. The period of poor teaching will therefore be prolonged after the war

unless, of course, both the public and the teachers decide something can be done about this situation.

The Solution Must Be Scientific

Something can be done, of course. The installation of the design of Total Conscription would at once place the trained teachers who have already had experience back into the jobs they were forced to leave because of low pay, for no longer would there be the low pay. Under Total Conscription the school teachers would receive pay commensurate with their work in the social welfare of American children, as well as food, housing, clothing, medical and dental care, even as the men in the Armed Forces receive. Education would be treated as a national problem, and the solution would be continent-wide; the same type of schools and education would be available for all American children.

Anybody Can Pose A Problem

'The supreme question which confronts our generation today—the question to which all other problems are merely corollaries—is whether our technology can be brought under control. Is man to be the master of the destructive energies he has created, or is he to be their victim?

This, then, is the problem—far more immediate and acute today than it was 20 years ago. It cannot complacently be left for time to solve. We cannot count on geologic ages for the development of methods of social control. What we do in this generation and the next may well decide

the kind of civilization, if any, which is to dominate the globe for centuries to come. We now have it in our power to tear the world to pieces whenever passion and emotion call the tune. We must hope that we have it within our power, too, although the opportunity may slip from our grasp not soon to be regained, to make this Frankenstein creature which we have built, the servant and not the master of the people.' Raymond B. Fosdick, President of the Rockefeller Foundation, in his Annual Report for 1943.

Technology Marches On

More Power + Less Work = Abundance

by Research Division 8741-1

Engines—Not Muscles

Project 'X'—the world's largest internal combustion engine factory, operated by the Aluminum Company of America, was completed last year. Complete data on the engines powering this aluminum-reduction plant were published in the technical press, but only now has its *location* been revealed . . . Hot Springs, Ark., which is near the source of raw materials.

This plant is operated by the following units:

50, 1,165-horsepower spark ignition natural gas engines, and
18, 3,600-horsepower Diesel engines.

This amounts to a total installed capacity of 123,050 horsepower. Among factories, only the Ford River Rouge auto plant has more installed prime movers, but they are in the conventional steam turbine units, as are most electric power stations.

Americans use engines for everything. By building six 6,000 horsepower electric motors and installing them in buildings designed for their use at Moffet Field, California, we are now able to test full-size airplanes for the first time, instead of scale models as heretofore. The buildings house the National Advisory Council for Aeronautics' new wind tunnel. Forty-foot, six-bladed propellers are turned by the six big motors to create arti-

ficial winds that can test new designs for planes up to 80 foot wingspread (twin-engine bomber size).

The Continental Can Company's plant at Clearing, in Chicago, is producing 5,500,000 cans per day. At that, it is operating at only 60 percent of its 24-hour capacity (*Chicago Herald-American*, June 26, 1944).

One of the latest refineries to be completed during the war is at Lake Charles, La. It required 25,000,000 man-hours to construct and over all its 600 acres the maximum employment will be but 1,500 people. Its production comes not from the power of the 150-horsepower total muscle-power the employees are capable of; rather, the two 25,000 kilowatt electric generators keep things going. What is the resulting overall plant capacity?

Sufficient butadiene to supply 10 percent of the nation's normal synthetic rubber.

Sufficient high-octane gasoline to send 1,000 bombers over Germany daily; approximately 2,000,000 gallons per day.

Sufficient vehicle gasoline to roll three armored divisions a distance of 100 miles.

The new Owens-Illinois Glass Company's plant at Waco, Texas, has a

capacity of 330,000 glass bottles per day. Only five machines are needed to do the work.

Only 300 people will be needed in the United States Rubber Company's new rayon tire cord plant at Scottsville, Va., to control the machines that will have a capacity of 12,000,000 pounds of rayon cord per year. The plant will be completed in October, costs \$2,250,000, which was put up (through the Defense Plant Corporation) by the people of the United States.

In Champaign, Illinois, University of Illinois research chemists have discovered a new way to join layers of synthetic rubber tires used in heavy bomber planes. Although efficiency is reduced 5 to 10 percent, the new process cuts time for joining the layers from 10 hours down to 10 minutes.

Last year U. S. Domestic airlines flew 78 percent more ton-miles of air-mail letters, 34 percent more air express freight, and 10 percent more passengers than in prewar—using 50 percent fewer airplanes.

One H. P. Hour Equals 10 Man Hours

Probably the chief reason why the farm manpower shortage is not as bad as it could be and it has not been necessary to ration milk, is the fact that farm milking machines were operated last year at a higher load factor than any other farm equip-

ment. Although the average milking machine was in use only 684 hours, the combined operations of all units did the work of 210,000,000 man-hours. (Source: *Agricultural Situation*, Jan. 1944):

At the start of last year our 4,600,000 farms having cows had between them only 310,000 milking machines. (The average machine in use was 8 years old.) During 1943, 125,300 additional single and double units were manufactured. But when you recall that:

1. There are 8,760 hours in a year, not merely 684, and
2. Less than one out of every 7 farms, having more than 2 cows, had milking machines—

then you can see how far we have yet to go in mechanizing milk production, as well as how much further we would have been ahead if we had had our farms mechanized before entering a war.

Yet, we can still go a long way toward raising our productivity and reducing unnecessary manpower, if we would raise the load factor on the machines we already have. Only Total Conscription can do that.

First 7 months of 1943 aircraft employees increased 4.4%. 1st 7 months of 1943 production increased 44%. In 1940 it required 440 men 1 year to build 1—B-24. In 1943 it required 17 men 1 year to build 1—B-24. In 1940 it required 232 persons to build a P-38. In 1943 it required 11 persons to build a P-38.—Figures taken from a speech made by Donald Douglas before the Board of Directors of the Los Angeles Chamber of Commerce, Sept. 9, 1943.

General Henry H. Arnold recently wired the Bell Telephone System:

'Directly as a result of your special electronic equipment the Army Air Forces has been able to take the offensive against Japanese shipping at a much earlier date and under conditions which normally would have made such operations impossible.'—From *Model Airplane News*, May, 1944.

Production of Electronic tubes is now 11 times as great as in 1941.

Production of electrical indicating and measuring instruments essential to fight a mechanized war soared 3,900% since 1940—from 700,000 to 28,000,000.

Seventeen thousand airplane castings may be inspected in 24 hours by an X-Ray machine.

Enough tin plate was produced by U. S. Steel Mills in 1941 to form a continuous 30 inch strip well over 1,000,000 miles long, sufficient to provide a giant tin girdle reaching 40 times around the world, according to K. W. Brighton, American Can Co. research technologist.

A house an hour is the record of a San Francisco builder who produced 700 three bedroom homes in 700 hours.

Where Was 'Free Enterprise?'

'The remarkable efficiency of wartime production of goods in such countries as the United States has been hailed in some quarters as proof of the continuing vitality and efficiency of old-fashioned capitalism. This is a highly superficial and misleading appraisal of the situation.

'In the first place, the impressive production has been due primarily to technical and engineering genius and not to any economic system.

'In the second place, the war and the Government demands suspended all but completely the very essence of capitalistic production, namely, the scarcity ideal and

From 500 rifle barrels per shift to 3,600—with no more people, and in about one-fifth the space. That is the increase in output achieved on a group of operations at the Springfield Armory.—From *Factory Management*, May, 1944.

Photo-electric cells check hand grenades at the rate of 4,000 per hour. When a defective unit appears on the conveyor, the mechanism rings a bell, lights a lamp, puts a dab of paint on the grenade and makes a mark on a chart.—From *Iron Age*, May 17, 1944.

'Solely from the angle of jobs the currently projected three billion dollars' worth of hydro-electric plants for the United States may cost workers \$100,000,000 annually in wages, the Bituminous Coal Institute said in a survey released today. . . . Coal miners alone stand to lose \$60,000,000 in wages yearly, \$40,000,000 to transportation workers and operators of coal-steam generating plants and others.' From *Detroit News*, Jan. 15, 1944.

It has been pointed out that a man's age can be measured by the degree of pain he feels when he comes in contact with a new idea.

the limitation of production in the interest of profits for the few producers. *For the first time, our economy has been compelled to comply with the ideals of the technology of abundance.* (Italics ours) —Excerpt from 'The Economic Pattern of Tomorrow' by Harry Elmer Barnes, in *The Progressive*, May 22, 1944.

Dr. Nicholas Murray Butler, President of Columbia University, recently stated: 'Engineering and medicine are the two most important intellectual occupations and will continue to be so in the future.' —From *Model Airplane News*, May, 1944.

In the Question Box

By Public Speakers Division 8741-1

This department consists of actual questions asked and answered at Technocracy meetings, plus those sent in by readers.

Will the coming election make any difference in the final outcome of the Price System? A.M.

Very little, if any. The physical trends operating in America which are rendering the Price System invalid are technological, not political. The day when political methods can solve social problems is past. It has long been necessary for politicians to call in technicians for consultation. Social problems are technical problems. Politicians, of course, are interested in maintaining the status quo, at all times. To that extent their function is to sabotage the future of America as a whole for the sake of pressure groups here now. They have always performed that way and we can expect them to continue in that role. Nevertheless, the U. S. Government is the voice of the sovereign people. It will do what the people demand. To that extent it will make some difference in the final outcome of the Price System.

What is the significance of the fact that 40 percent of the million men who have returned to civilian life from the Army and

Navy do *not* want their old jobs back but want other and new jobs instead? R.F.

It's probably because they don't want to get back in the same old rut they were in before, but want to better their condition. Modern warfare is technological. The number of arts, trades and professions represented in the Armed Forces is fully as large as in civilian life. In addition, in time of war, the Armed Forces have first access to all the new technology. Also, for the first time in their life a large number of men get a chance to work at something they like and learn something new. The standard of living in the U. S. armed forces is higher than it is in civilian life for most soldiers. It is not strange that such a number of discharged service men dislike the idea of crawling back into their old ruts. They've had a taste of something better and want to find an equivalent spot in civilian life.

In the event that Total Conscription is installed, what will happen when the six months' period is over after the war ends? D.G.

Total Conscription automatically expires six months after the war is over. The only thing that will happen then is that we will return to our old dog-eat-dog social habits. If the people don't want to go back to mass unemployment, depression and

a hopeless existence, they can then indicate their desires to the Government. That is what the Government is for.

How would Total Conscription affect the men in the Armed Forces? K.N.

It would boost their morale a thousand percent overnight. It would give them the knowledge that no one could possibly make any money out of the war. They would know that the home front was on the same basis as the Armed Forces and that everybody was working together for the same thing. They would know that the country as a whole was being made into a better place to live in and return to than when they left it. This knowledge would fortify every man and woman in the Armed Forces immensely. Yes, Sir! Total Conscription would be good medicine for the Armed Forces.

Will money be worth its present value after this war; your personal opinion, please? A.D.

Opinions are worth about a dime a hundredweight and since they are all made up of hot air, it would take a lot of them to weigh a hundred pounds. Technocracy does not deal in such cheap merchandise. This speaker has no opinions about the value of money, and cares less. We

suggest that you buy the little booklet called 'The Mystery of Money.' Then you will realize that the point is not important.

I hear often that Technocracy is fascism, is that right? G.A.

No, that's wrong, according to the fascists themselves who call us communists. This old canard was spread by the various and sundry schools of socialism and communism in America to distract attention from their own little rackets; while the genuine native fascists spread an opposite story for the same reason. It's a cinch they can't both be right. Maybe Technocracy is just simply an all-American social movement. Have you ever thought of that? Look into it; it's important.

Would Total Conscription include the President and members of the House and Senate? N.B.

Yes, It would include every living person from 18 to 65 years of age, for all necessary duties, both civilian and military. However, Total Conscription would be administered by the present Government, and there would be no change in that respect. But, don't get the idea that Total Conscription is a scheme to get a fourth term for Mr. Roosevelt. The program of Total Conscription was published as early as July, 1940.

What Do You Think?

'On June 9, the third day after the invasion of France, "German sterling bonds were in demand" on the London Stock Exchange. In a day the German 5s (1942) rose from 8½ pounds to 9½. A student of European history asks if some big

money is being staked on a different view of Germany's future than the man on the street can now see.'—Excerpt from the column 'Here Is Chicago' by Robert Faherty in the *Chicago Daily News*, June 23, 1944.

Straight From the Horse's Mouth

Read 'Em' and Wonder

by The Peripatetic Technocrat

I Should Keep In Touch With My Voters?

Three thousand letters a day go out of my office. Every time there's a birth, death, accident, hospitalization, induction or celebration in Chicago I write a letter to the family.

Mayor Edward J. Kelly of Chicago to Maury Maverick, ex-mayor of San Antonio, in answer to the latter's advice to Mr. Kelly to keep in touch with his voters. (As reported in Leonard Lyon's column in *Chicago Daily Times*, January 19, 1944.

This bill assumes to disregard my area . . . to try to centralize and to federalize and to control the raindrops, the fog and the dew . . . You cannot beat God. God knows you cannot stop floods by dams. You cannot beat nature or nature's God, no matter how smart you are.

Representative Chas. A. Plumley of Vermont, in opposition to a proposed \$30,000,000 Federal dam and power project in the West River Valley in Vermont. (As reported in *Newsweek*, May 22, 1944.)

Whereas two world wars in a single generation have demonstrated the urgent necessity of international collaboration for the maintenance of peace and justice among nations, and

Whereas the United States after attempting to remain apart from these wars has in defense of its own security been drawn into them at heavy cost in human lives and material wealth,

Resolved, that the General Federation of Women's clubs requests the President, the governors of the several states and each member of Congress to use their best efforts to advance the present price of crude oil 35 cents per barrel.

Part of a resolution adopted by the General Federation of Women's Clubs at its St. Louis convention recently. (As reported in 'Inside Washington,' a column in the *Chicago Sun*, edited by Bascom W. Timmons, June 20, 1944.)

The great need for food in the years following demobilization should make it both necessary and possible to distribute food in a fashion designed to maintain stable prices and markets.

Lt. Col. Ralph W. Olmstead, Deputy Director for Supply of the War Food Administration, before the 46th Annual Convention of the National Association of Retail Grocers in the Palmer House, Chicago, Illinois, June 5, 1944. He also said:

We are going to carry it out even if we have to dump the eggs in the ocean.

This was in answer to a question regarding the surplus of eggs and the Government's promise to support prices. (As reported in the *Chicago Tribune*, June 6, 1944.)

After the war everything will be obsolete every five years. Everything, just everything.

William B. Stout, famous Detroit inventor-designer, in an interview with the Press at the Hotel Pierre in New York recently. (As reported in *Newsweek*, May 29, 1944.) We wonder if the above statement by the ebullient Mr. Stout includes the Price System? He said 'everything.'

Social Security demands that each citizen give up his individuality, his integrity, his intelligence and his independence in order that he may share in the redistribution of existing wealth. . . . Much chronic halfsickness is the result of malnutrition for which the medical profession cannot be blamed. Any attempt to meet this situation on a nation-wide scale with so-called adequate medical care will certainly bankrupt our economy.

Dr. J. Craig Bowman, chairman of the Section on Miscellaneous Topics at the Annual Convention of the American Medical Association in the Morrison Hotel, Chicago, Ill. (As reported by Hazel Macdonald in *Chicago Times*, June 14, 1944.)

Unless sooner terminated this authorization shall expire at the close of the last day of the month immediately preceding the first month that begins six months or more after the date of the termi-

nation of hostilities in the present war.

An extract from the Federal Register of 'Exemption from Taxes.' (As reported in 'Inside Washington,' a column in the *Chicago Sun*, edited by Bascom N. Timmons, May 12, 1944.)

Would you give me the opportunity to fill the positions? I would guarantee it would be done without difficulty. I would like to have it. It would be good for the country.

Sewell L. Avery, Chairman of the Board of Montgomery, Ward and Company to Representative Moroney (Dem. Okla.) at the former's appearance before a Select House Committee investigating the Government's seizure of Ward's properties April 26, 1944. This statement was in answer to Moroney's question as to how Avery would go about improving the make-up of the War Labor Board. (As reported by Vance Johnson in the *Chicago Sun*, June 7, 1944.)

Scene: A North Shore collection center for Russian relief.

Time: Midwinter 1943.

Characters: An attendant at the center and a society matron.

Society Matron, bringing in some old garments: 'These are slightly torn, but may I donate them anyway?'

Attendant: 'We prefer not to accept such clothing because the Russians simply have no means of mending them.'

Society Matron: 'Even if I include a needle and thread?'

Attendant: 'Not even with a needle

and thread. But we'll be happy to list your name as a volunteer for our kit campaign, during which we do mend clothing for the Russians.'

Society Matron: 'Oh, I'd love that,

but I can't—my husband's a Republican.'

(Rewritten from a scene reported in Kup's column in the *Chicago Times*, December 20, 1943.)

Three Strikes And You're Out

'Going around army camps and seeing the incredible jobs scientists, engineers and mechanics have done in the desperate emergencies of war is bound to make you think that if the same high genius were applied to preserving peace it would be virtually impossible to make war. But that fact hasn't been given due consideration by mentally deficient people who get into political power. Hence, these nuts compel mankind to concentrate on murder instead of on enjoying life. They get the suckers into the position of knowing that there can be only one of two answers, kill or be killed,' Herb Graffis, *Chicago Times*, April 23, 1944.

'Despite all the talk about economic planning by business, not one business plan looks forward to the complete utilization of our mechanical equipment for human service. All plans look back to profits—and bigger profits—at the expense of our economy and the public weal. Some of the plans have been so greedy and shortsighted as to alarm relatively enlightened businessmen like Charles Wilson.

'Most disconcerting of all, the great cartels and monopolies, and their Government stooges, are already under way in the effort to suppress the more notable scientific and technological advances of wartime, in the hope of defending their investment in, and control of, obsolete techniques and inefficient processes.'—Excerpt from 'The Economic Pattern of Tomorrow' by Harry Elmer Barnes, in *The Progressive*, May 22, 1944.

'We Americans are on the threshold of a great decision. We have to decide whether we shall go ahead, eyes open; or crawl back abed and pull the sheets up to shut out the lightning of change.

'Baker Brownell puts the situation clearly. "Our industrial society travels on two legs. One leg is 20th century technology. Its main function is production. The other leg is 19th century business administration and finance. Its main function is to assemble capital, facilitate exchange and, particularly, to administer distribution. . . . With one long leg and one short leg our industrial society travels in spurts and circles and then falls down. Then it gets up and does the same thing over again. This is solemnly called the business cycle; and nothing, say the economists, can be done about it."

The Open Door

'If nothing can be done about it, the future is black indeed. We shall repeat the dreary tale of idleness and "relief"—and on a vaster scale than before.

'But something can be done about it. Only the "something" will be nothing less than complete revision of attitudes. . . .

'We have willing hands and rich resources. The bloody fist of war has hardly touched us. In all its history, our land never faced greater opportunity for health, wealth and happiness. Nothing but our own stupidity can close the door on that opportunity. Only if we persist in looking backward will the history of the United States fail to have a bright new chapter.'—Excerpts from Howard Vincent O'Brien's column in the *Chicago Daily News*, May 29, 1944.

THE OUTGROWN

by Ernie Crook

Reprinted from *Action*, April, 1944

Like an ox in modern traffic,
Like a sword in modern fray,
Or a scythe in modern harvest
Is our scheme of buy and pay.
Own and borrow, get and corner,
Trade and barter, hire and loan,
Taking interest, rent and profit,
While our brothers sigh and moan,
Millions idle, robots taking
Jobs from living mortal men.

So our barns burst out with surplus,
Goods that mean but mere refuse.
Dead machines they eat not, wear not,
They produce but never use.
This sad scheme is dead and done with,
Unless 'tis to patch and mend.
Junk the system; spread the bounty,
Bring this folly to an end.
Let resources God has given
Minister to mortal men.

Contributors To This Issue

Herb Graffis writes a column in the *Chicago Daily Times*. He is not a member of Technocracy Inc.

Clyde Pangborn is a famous pilot. He is not a member of Technocracy Inc.

R. W. Herring is a member of R.D. 8342-1, Detroit, Mich.

The Peripatetic Technocrat; R. F. Novalis; and Anne Laurie are members of R.D. 8741-1.

Robert Bruce is a member of R.D. 8741-1, Chicago, Ill.

Articles by the various Divisions of 8741-1 are collective compilations.

The Marion, Illinois, Trades Council and Trades Body have affiliated with the Marion Illinois Chamber of Commerce. This was reported in a U.P. dispatch in the *Chicago Sun*, June 12, 1944. What, no class war?

Information about Technocracy Inc. in the Great Lakes Area can be had at these Section addresses.

- 8040-1—204 Columbia Bldg., Pittsburgh, Pa.
8040-2—Box 356, Ambridge, Pa.
8040-3—340 Brighton Ave., Rochester, Pa.
8041-1—1613 East 51st St., Ashtabula, Ohio.
8141-2—738 Prospect Ave., Cleveland, Ohio.
8141-3—38 South High St., Akron, Ohio.
8141-4—2237 Front St., Cuyahoga Falls, Ohio.
8141-7—501½ Tuscarawas St., Barberton, Ohio.
8141-14—P. O. Box 545, Ravenna, Ohio.
8141-15—12516 Shaw Ave., Cleveland, Ohio.
8240-1—207 N. Washington St., Galion, Ohio.
R. D. 8242—c/o Arthur C. Clayton, Marine City, R. No. 1, Mich.
R. D. 8242—c/o John Reynolds, St. Clair, R. No. 2, Mich.
8339-2—302 N. Clairmont Ave., Springfield, Ohio.
8341-1—2276 Putnam St., Toledo, Ohio.
8342-1—9108 Woodward Ave., Detroit, Mich.
8342-2—1610 N. Saginaw St., Flint 4, Mich.
8342-2—615 Peoples State Bldg., Pontiac, Mich.
8439-1—P. O. Box 81, Station A, Dayton, Ohio.
R. D. 8641—916 E. Corby Blvd., South Bend, Ind.
8743-1—2250 N. 27th St., Milwaukee, Wis.
8844-1—217½ Pine St., Green Bay, Wis.
8844-2—1208 N. Richmond St., Appleton, Wis.
8844-3—135 Van St., Neenah, Wis.
9038-1—4518 Delmar Blvd., St. Louis, Mo.
R. D. 9041—2428 13th Ave., Rock Island, Ill.
R. D. 9140—18 N. 5th St., Keokuk, Iowa.
9344-1—114 South 7th St., Minneapolis, Minn.
R. D. 9344—634 St. Peter St., St. Paul 2, Minn.
9439-1—817 Walnut St., Kansas City, Mo.
9648-1—Route 1, Box 2, Warren, Minn.
R. D. 9737—4442 Bayley, Wichita 9, Kan.

TECHNOCRACY

WHAT?

WHERE?

WHEN?

WHO?

WHAT?

★ Technocracy is the only American social movement with an American program which has become widespread in America. It has no affiliation with any other organization, group or association either in America or elsewhere.

★ The basic unit of Technocracy is the chartered Section consisting of a minimum of 25 members and running up to several hundred.

★ It is not a commercial organization or a political party; it has no financial subsidy or endowment and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are \$6.00 which are paid by the member to his local Section.

★ Members wear the chromium and vermillion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHERE?

★ There are units and members of Technocracy in almost every State, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces.

★ Members of Technocracy are glad to travel many miles to discuss Technocracy's Victory Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHEN?

★ Technocracy originated in the winter of 1918-1919 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1930 the group was first known as Technocracy. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934, Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundations of the present nation-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHO?

★ Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this country. Membership is open only to American citizens. Aliens, Asiatics and politicians are not eligible. (By politicians is meant those holding elective political office or active office in any political party.)

★ Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—as long as you are a patriotic American—you are welcome in Technocracy.

**Great Lakes Technocrat,
306 W. Randolph Street,
Chicago 6, Illinois**

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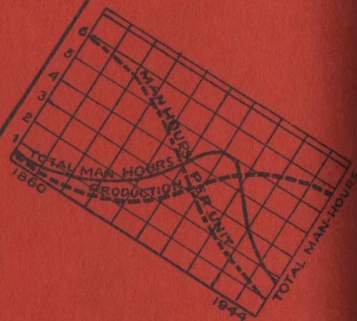
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